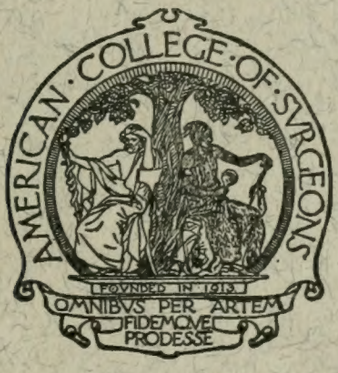
BULLETIN

OF THE

AMERICAN COLLEGE of SURGEONS

VOL. X JANUARY, 1926 NO. 1



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AMERICAN COLLEGE OF SURGEONS
40 EAST ERIE STREET :: :: CHICAGO

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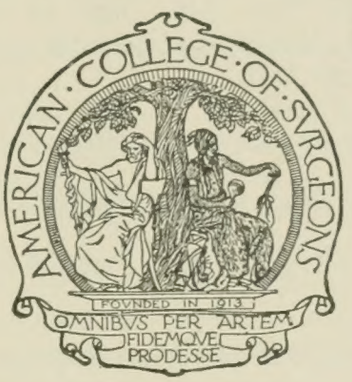

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CONTENTS

THE COMMUNITY HOSPITAL

CHARLES H. MAYO, M.D., Rochester, Minnesota
Professor of Surgery, University of Minnesota Medical School

I AM always glad to visit Philadelphia. Medically it is a city of historic interest. Some of our greatest men in American medicine have lived here; about 80 per cent of our medical books are printed here and more than one-half of them are written here, showing a contagion of learning which is more often sporadic in other places.

The cost of medical education has greatly increased in both time and money in recent years. The medical student of today is well on in years, nearly thirty, when ready to practice, all of which results in a limitation in the number of students. The standards of medical education demanded by the medical profession have become so high that of the 160 medical schools existing fifteen years ago there are now but eighty-one.

The family physician will not disappear. He is merely advancing with the age and gradually acquiring more of a general knowledge of disease and its treatment. He is a safe man for the needs of today as he is competent to cope with most of the prevailing diseases and also competent and ready to choose special aid in the diagnosis of obscure or complicated diseases, or for operation, should it be indicated. The family physician is not standing still to watch the world move on.

Progress along one line and regression in another may yet be the means of marking new paths. Thus, with the automobile and good roads the physician of today thinks no more of a drive of thirty or forty miles than his father did of ten or twelve miles with old Dobbin.

Few of the graduates in medicine today, who have better general and theoretical qualifications than their professors who were mostly three-year student graduates, will now settle permanently in the villages and small cities of our country. The result is that the farmer legislators, feeling that there is a dearth of physicians as their old family physicians die off, let in all of the partly trained cultists who apply, all of whom must eventually be assimilated by the regular medical profession just as were the homeopaths in the past.

Osteopaths have added greatly to their curriculum, and are asking the privilege of performing operations, and of specialization. The chiropractor is still far behind but will gradually acquire knowledge through the force of public opinion. In many states there are from one to several counties without a physician. At the clinic we receive many letters each year from towns of 500 to 1000 people asking for physicians. Often a bonus of $2000 a year is offered.

Some of these doctorless counties have established a community health center in which a few beds are available and a trained nurse is in charge. The sick and ailing come here for observation and the administration of the simple household remedies, as the nurse knows far more than they about sickness. The nurse is in contact with the surrounding cities by telephone, and diagnosticians, surgeons, or obstetricians can be called when needed.

If there is a shortage of physicians there is even a greater shortage of trained nurses. The number of trained nurses is greatly lessened each year by those who marry shortly after graduation, and by those who take up special work with shorter hours, such as public health service, child welfare work, or become surgical and medical assistants and office aids. The old-fashioned nurse, most helpful to the physician, the patient, and the family, is seldom seen. The term of training of the present-day nurse, with technical and practical work, is nearly as many months as that of a physician. The daily cost of such a nurse is as much as the heads of a large proportion of our families earn. It should be said, however, that the nurse should save the physician one or two visits each day, thus practically doubling his range of work.

Assuming that the medical student of today is overworked in theory, accumulation of facts, and in the specialties of medicine, with little or no opportunity to develop reason and judgment concerning the development of disease and its care until after graduation, it has been suggested that it might even be advisable to return to a three-year medical school training in the fundamentals of medicine without the intensive training in the special branches now taught by specialists. A way-station, so to speak, might be established, giving the opportunity to all who desire it, to take the fourth year in the specialties of

medicine and surgery as a continuation of their study immediately after a three-year course, or at a later period.

In medicine once a student always a student, if one is to keep pace with medical progress. Graduate study in the specialties is advantageous, but not necessary to all students. This is true also of nursing. A nurse should receive a certificate for two years of work, entitling her to practice general nursing with the privilege of returning at any time for a year of training in any of the special branches of her profession with an added diploma in recognition of her work.

Knowledge of the maintenance of health, and the cause and prevention of disease has advanced so far during the last thirty years that no one can encompass it all. The hospital in a community is an equivalent of group medicine. An illustration of this is a hospital in Danville, Pennsylvania. This hospital of 100 beds was built a few years ago. At the time it was large for a small city, but it was soon found too small, necessitating the building of an addition. The sick come from all the surrounding territory and in case of need remain in the hospital for diagnosis and, if advisable, for medical care or for operation. The neighboring physicians send their special cases to this institution, and they are returned to them with a letter giving the diagnosis and advice as to their care. There is no fee division but always friendly coöperation. Another development of the small town hospital in this state of progressive medicine is that at Sayre, a city of 8000. The hospital is larger and is conducted in much the same manner, giving special services to the profession and to the sick for fifty miles around. The hospital at Sayre is a real medical educational center. The graduate school of the University of Pennsylvania, in this city, sends its professors once a week to give lectures on medical and surgical subjects. The individual expense for physicians availing themselves of this graduate instruction was only $62.00 last year for the fifty-two lectures. The physician with his automobile is able to continue his home work morning and evening. Similar graduate instruction is given at Scranton. This is true medical education and makes of the hospital a recognized health center for the community.

The Regents of the College are very proud of the work that has been accomplished in elevating the standards of American hospitals and of developing the equipment, education, and morale of the staffs so that the American public will receive the best possible care when sick. This section of the yearly meeting of the College has assumed increasing importance and is now a permanent institution.

POLITICS AND HOSPITALS IN THEIR RELATION TO HOSPITAL STANDARDIZATION

RUDOLPH MATAS, M.D., New Orleans, Louisiana
President Elect, American College of Surgeons

IT is quite evident that, within the time allotted for this discussion, I can only touch upon the salient points of a large and thorny problem which in some states has been facing the friends of Hospital Standardization ever since this movement has engaged the activities of the American College of Surgeons.

By politics, in the sense that it applies to the present discussion, I mean particularly that phase of it which manifests itself in the sordid, selfish, and partisan exercise of political power for the benefit of party or personal interest, without special regard for the public welfare;—which subordinates the public interest to the exigencies of individual or party service.

During the more than 150 years that the exploitation and spoliation of public office has been systematically grafted into our political system, as the legitimate perquisite of a ruling party, the pernicious influence of this demoralizing and degrading principle has been felt in every branch of the governmental service whether federal, state, county or municipal.

One of the most striking and shameless manifestations of this abuse of political power is offered by the utilization and exploitation of hospitals and other institutions for the care and protection of the sick, the insane, and other dependent classes, for the distribution of patronage, for the payment of political debts or for the rewarding of faithful workers for the "cause."

The reaction and revolt of the public against this disgraceful practice has led to the reorganization of the federal service through congressional enactments which have laid the foundation for the civil service reform act in the

federal and in some of the state governments. It has also led to the adoption of new legislative acts in many of the states, which attempt to protect more or less the public service from the aggression of changing and rival political factions. That it has accomplished much of the good which it was intended to effect is certain; but that it has defects in its present form and that it has failed to meet all the requirements of an efficient public service is also admitted; but with the further amendments that have been proposed and that will eventually be adopted by Congress, the Civil Service Act will remain a solid bulwark against the corruption of the federal service.

Considering politics in its relation to hospitals, we have in mind all institutions that are supported by public funds and that are directly or indirectly managed and controlled by the constituted political authorities in the different states and communities in which they may be situated. To attempt a survey of the laws and their effects and the manner in which they are executed upon the administration of the state, county and municipal hospitals throughout the 48 states of the Union, is an impossible task which is beyond my competence or that is necessary to meet the requirements of this occasion.

I have, however, attempted an inquiry into the laws and statutes governing the administration of the *state* hospitals, to the exclusion of all other public hospitals, hoping that, in this limited way, I would gain some insight into the latitude the laws afforded for the play of politics in their execution.

From this I gather that the number of public hospitals classified under the category of state hospitals, is relatively small as compared with the immense number of city, county and district hospitals. There are approximately 251 state hospitals in the United States, of which 46 are general hospitals, 152 are hospitals for the insane and mental defectives, and 53 for the treatment of tuberculosis. The ratio is about 1 general to 3 mental disease hospitals, and 1 tuberculosis sanatorium to 4½ of the total number. Therefore, the total number of general hospitals in which the A. C. S. is especially concerned is relatively small, but the legislation that governs all state hospitals, whether general or for the insane, is fundamentally the same, though their internal management may differ in many important respects.[1]

[1]It was not until after I had begun this inquiry that I had the opportunity to read the report of Dr. H. W. Mitchell of Warren, Penn., to the American Psychiatric Ass'n at its 80th annual meeting in Atlantic City, N. J., June 3-6, 1924. In this paper on "The methods employed in the control of state hospitals for mental patients and in the relation of the central authority to the local management," the reader will find a wealth of well digested information gathered by a painstaking, judiciously critical and unprejudiced expert that will prove of incalculable value to the student of hospital management in this country. I have quoted liberally from this inspiring document and cannot recommend its constructive suggestions too highly to all those who are looking to the betterment of hospital conditions in their respective localities. (R.M.)

Even the most superficial study of the legislation enacted by the different states reveals a great diversity of systems on methods of administration. "The principles of management considered fundamental in one state are completely disregarded in another, with the resulting demonstration of everything from the best to the worst. It is evident that no one system of government is applicable to all, and that even if such a uniformity were possible it would not be satisfactory or desirable. The requirements of the state with a population of many millions and with dozens of institutions to support, is essentially different from one with few people and only one or two hospitals."

Without attempting to enumerate or describe the various systems in vogue in the different states—as I am solely concerned with the investigation of the political machinery by which the institutions may be made subservient to political ends—I have arrived at the following classification:

1. State hospitals controlled directly by the governor alone or with the assistance of his immediate executive staff (Secretary of State, State Treasurer, State Auditor, Attorney General) who, while serving in their respective offices, also act as commissioners of charity for all the institutions (9 states).

2. State hospitals governed by local boards appointed by the governor with or without requiring the consent of the senate (7 states).

3. State hospitals governed by a State Commissioner or salaried director, appointed by the governor (4 states).

4. State hospitals governed by a paid commissioner of charities, supervising local boards, appointed for each institution by the commissioner or governor (2 states).

5. State hospitals governed by a *central* board of control, appointed by the governor (19 states).

6. State hospitals governed by *local* boards of trustees, supervised by a *central* board of paid or unpaid commissioners (7 states).

[NOTE:—All the appointments on these boards are made by the governor or the central board. In some few instances, partly by the governor and the legislature, and, in one instance, by the regents of the State University (Michigan).]

Viewed in this crude way, it would seem that virtually all state institutions, and surely the majority, are amenable, at least *potentially*, to political influence, if not to absolute political control. However, the liability to political interference increases or diminishes to a notable degree in proportion to the proximity and directness of the institution to the central executive. It is greatest in the states in which the institutions are directly controlled by the governor, or by a central commission selected from the members of the immediate executive staff, and where central and local boards hold office only until the governor's tenure of office expires, and where every gubernatorial election is likely to bring about changes in the personnel of the hospital administration. Political control loses most of its power whenever it is diluted and purified as it filters through the resisting strata of coördinating central and local boards, whose members are appointed for overlapping terms, thus creating at least one vacancy to be filled annually. This system assures a continuity of service and allows the superintendent and his assistants to devote their whole time and attention to official duties without distracting them by an anxious study of the political weather vane.

It would be idle to enter into a discussion of the comparative merits of the various systems or methods of administration that are now in operation. Whatever the systems, whether centered in an autocratic authority, embodied in a single individual, who rules over all the institutions, or in a central board of control consisting of a number of individuals, or a combination of a central board acting in harmony with the local boards,—yet each enjoying a practical autonomy in the management of its affairs,—it is evident that so many factors play a part in comparing their valuation, that proven superiority cannot be attributed solely to the choice of any method. Experience has shown that good service can be rendered despite an imperfect and dangerous system, and the opposite result is equally possible. Even an oligarchic system, which confers all powers on one individual, has yielded, in some instances, beneficial results, especially when that individual happened to be a reformer and a man of enterprise, ability and fearless integrity.[1] But these are mere accidents, and the security of state institutions cannot be entrusted to chance. A system must prevail which divides the responsibility of the hospital government between the groups respectively concerned in the local interests of the community and in those of the commonwealth. Upon two essentials, we, as medical men, must agree: one,—that politics must be eliminated from hospital control; and two,—that medical interests should be entrusted to medical men, who should have as associates those who bring the necessary training and experience to the conduct of non-medical matters of secondary importance. (*Mitchell*).

[1] In this connection the reader will find abundant material for reflection in the luminous report of that distinguished expert on hospital administration, Mr. Henry C. Wright, to the State Charities Aid Ass'n of New York, entitled: "A valuation of a system for the administration of state institutions through one man control as operated in Illinois." (N. Y., Nov., 1922).

At no time in the history of the world than at present has the public interest been more thoroughly roused to the significance and communal importance of hospitals as centers of medical, educational and social development. It is immensely gratifying that, through the propaganda for hospital reform and standardization initiated by the American College of Surgeons and allied national medical and hospital organizations, this country is leading the world in its enlightened appreciation of a new and glorified concept of the function and mission of hospitals. It is also a cheering sign of the times that new laws are continually being enacted to adapt hospital government to the improved conditions which, incidentally be it said, are adding more buffers for their protection against political abuse. It is, however, none the less true, in spite of all the great improvements, in the last few years, of hospital administration throughout the country, that, in many states of the Union, public hospitals are still amenable, if not actually subservient, to political rule. That the progress of hospital standardization is being obstructed by the snags that an old deeply rooted system of political misrule has left in its path, cannot be doubted.

Allow me to quote a few examples:

In a letter,—recently received from a surgeon and Fellow of this College, living in an adjoining state where there are four general, two mental and one tuberculosis hospitals, and where the sole appointing power of all these institutions is invested in the governor of the state,—I read: "The need of better charity hospitals in ..... is felt by all the well informed physicians and surgeons in the state. At the present time, the superintendents are the operating surgeons; they are appointed usually from political country doctors who have no ability and have never done surgery. They are turned loose with a free hand to cut and slash without restrictions. I have seen normal organs removed. Sometimes these doctors appoint a staff only in name; in reality *they* do the work, and this without consultation or previous training. They use the hospital to

'learn' surgery and then use it to work up a practice among the ignorant country people before their time of service is over. As an example, the hospital in ....,—its superintendent had never operated until he came to the hospital. He told me this himself, and as I was on the staff when he came, I can swear he was telling the truth. This man never saw a patient until the patient was on the operating table, and never wrote or took a history, depending entirely upon a young interne for this." The account given of this hospital in its internal arrangements and service is on a par with its medical administration and is a challenge to all the requirements for standardization.

This correspondent describes similar conditions as existing in other charity hospitals in the state; all indicating that the method of administration, as conducted under the state laws, is woefully defective. He concludes by stating: "I know the governor of the state wants to do right, but he is handicapped by a lack of technical knowledge and his inability to discriminate between the qualified and unqualified men, who come to him loaded with all sorts of recommendations from reputable doctors and citizens. I believe that if some different standard were set and if superintendents were appointed for executive duties, and that surgery were only performed by a thoroughly trained and competent staff, the people would have a better idea of what hospital standardization means."

Too much stress, in his opinion, is laid on the mere keeping of records, while other factors, of far greater importance in determining the efficiency of the hospital, are overlooked.

Statements made by this correspondent are confirmed by other reliable and disinterested Fellows of the College who agree that reforms are necessary and the time is ripe for them, if a movement is started under proper leadership. They all agree the fault does not lie in the governor, but in the system. I would venture to say of this governor, and of others whom I have known and whom I regard as just and honorable men, that they would gladly be relieved of the appointing of medical men to public hospitals, if the law would allow them to transfer this troublesome function to more competent authority.

In another neighboring state, a different condition of affairs is disclosed by a letter from another well informed and responsible correspondent. In this state, there are three large state hospitals dedicated to the care of the insane, but the methods that govern their administration would apply in principle to the management of general hospitals if they existed in that state. The law there prescribes "That the superintendents of the respective state hospitals are appointed by a central board of control, subject to the approval of the governor," which means that the governor practically names the superintendent.

"The law also provides that a physician, to be eligible as superintendent, must have all the accomplishments of a distinguished specialist, alienist and, in addition thereto, he must be an ideal citizen. Usually the governor's personal and political friends are the only men filling the aforesaid requirements to the satisfaction of the governor; therefore, when the appointment is boiled down to its last residue, it becomes merely a political extract. The board of control decides the question of fitness of the applicant from the information obtained, generally speaking, by interviewing personal and political friends, hence the selection of the best available man depends upon luck, to a greater extent than would be the case if the responsibility of selecting the medical superintendent had been transferred to a group of doctors competent to judge of the candidates' real merit."

In another neighboring and large state, where the people are noted for their great enterprise and prosperity and which is provided with admirable general hospitals managed by private interests and that very justly appear in the college list of the most approved standardized hospitals, we find that the state institutions are governed by a central state board of control whose salaried members are appointed by the governor with the consent of the senate. The board also has authority to appoint a chief who supervises all the eleemosynary institutions, this chief to be a physician with at least ten years' experience and of recognized eminence in his profession.

Of this state, seemingly so well provided with legal bulwarks for the protection of its state institutions, a thoroughly informed and competent correspondent, a Fellow of the College, writes me: "My investigation discloses the fact that practically all the offices in these institutions are used as political money to pay political debts, and the men who seek these practices have taken active part in supporting the factional leaders. The only exception to this is the physician appointed to attend the students of the State University, and who is chosen by the Board of Regents and the President of the University. All other positions are political 'handovers' which result not only in the appointment of incompetent men as heads of these institutions, but the hospitals also suffer from the instability of their positions, which are

likely to change every two years with the new gubernatorial election."

In my state, the state of Louisiana, there are three general hospitals and two large insane asylums. All the state hospitals are governed by local boards appointed directly by the governor, who is ex-officio president of each. The Charity Hospital of New Orleans is one of the oldest and largest general hospitals of the United States as well as of the South. It has a capacity for 1168 beds. Its annual admissions to the indoor department amount to 24,224 patients. It has a staff of 250 physicians, surgeons and specialists, 40 internes and 164 nurses. In 1912, it celebrated the hundredth anniversary of its existence and yet it was only a hundred and one years after its foundation that an executive and administrative superintendent was appointed to replace a system which centralized in the chief house surgeon the combined functions of superintendent and operating surgeon, with the privilege of outdoor practice. It was also then, for the first time, that the medical staff was given official recognition as an advisory body. In 1917, the gubernatorial election brought with it a complete change in the board, and the former superintendent, a thoroughly efficient officer, was summarily dismissed to make room for a new appointee favored by the new governor and his board. In November, 1924, when on the eve of a new election, the medical staff found it necessary to send a committee to each one of the three gubernatorial candidates canvassing the state at the time, to inquire as to their future attitude toward the administration of the Charity Hospital, if elected. In explanation of this question, the staff stated in a published document: "That the history of the Charity Hospital during over a century of its existence offers a striking illustration of the fact that its administration had been made subservient to the personal or party interests of the political leaders who had governed the state." The effect of this system of political patronage upon the efficiency of the hospital was clearly exposed, and the candidates responded with the usual promises and assurances of good will. This occurred a year ago, and thus far the status quo remains fortunately undisturbed, with only the added concession (?) made by the newly elected governor, that the members of the board that he should appoint would serve for overlapping terms. In this he simply ratified what the law prescribes, but a law that many of the past governors have never deemed it necessary to obey.

It is only fair to state that there is no complaint against the present Board of Administrators. They are all representative and public spirited citizens who have the interests of the hospital at heart. They have recognized the right of the Medical Staff to representation in the management of the hospital. They and the superintendent are earnestly and liberally coöperating with the advisory committee of the staff in all matters that relate to the medical and technical management of the hospital. But this is only a fortunate circumstance and the excellence of the present administration does not insure against the repetition in the future of the political evils from which the institution has suffered.

Very recently we have learned that a capable superintendent of the leading insane asylum in the state, who had served with marked ability during the previous administration, was displaced to make room for a more favored appointee.

Again, in another neighboring state in which the state institutions are controlled by a board of charities appointed by the governor, and where all the appointments are subject to the approval of the governor, and, therefore, liable to change with each election, we learn that the chief hospital for mental diseases has been for several years without a permanent superintendent. Some excellent experienced and highly trained men have been there, but each in turn has been forced out by politics. Recently a very competent man who was in charge of a well known institution in New York was offered the superintendency but, after serious consideration, he declined, giving as his reason that politics in the management of the institution would make any superintendent's tenure of office insecure and that no one, however conscientious, could institute the much needed changes under such conditions. The writer of this paragraph adds the following commentary: "How long are the people of this country going to permit peanut politics and graft to manipulate their eleemosynary institutions? And what are the people going to do about it?"

Why continue in this vein? Why multiply examples that are no doubt familiar to everyone present, either through personal experience or the knowledge of the history of state hospitals in this country? *Verbum sat sapienti*, and if I have given you many words it is because I believe that the evils and errors under which our public institutions have lived in the past still remain as an inheritance that haunts us and that we have not been able to frighten away. The taint of corrupt politics leaves a stain which is hard to wipe out. But we have entered into a new era in the history of hospital administration, in which a more enlightened public and the leaders of our profession are coöperating for the uplift and re-

habilitation of the lame and crippled members of the public institutions which have not been able to keep step with the march of the procession.

Now that we have said so much to show the presence and extent of the evil, we need not ask what effect can the existence of these conditions have on the progress of hospital standardization. It is evident that wherever these conditions prevail the propaganda for hospital reform will be retarded, if not wholly obstructed. What is more to the point, is: What can the American College of Surgeons do about it? In answering this question, we must bear in mind that "The choice of a system for organization and control in a given state is a local matter, finding ultimate expression in legislative enactments that clearly indicate the extent of interest and information that the public has in these matters." As has been well said, great moral and social changes come not as a result of laws, but as a result of the betterment-urge, which compels the enactment of the laws. Laws are effects,—not causes. Legislative action in this, as in other matters, becomes an index of the interest and intelligence of the community and of its ethical and cultural development. It has been long since recognized that, in our form of government, a political unit, large or small, usually gets the representation and legislation that it deserves. The people make or mar a system, both in its formation and later operation. If the voters of any state choose to relegate the care of their hospitals and other allied life and health institutions to the exclusive control of a few political leaders, who happen for the moment to be occupying certain state offices and whose official acts are guided by the Jacksonian motto, "To the victor belongs the spoils,"—then we may know that the public interest and knowledge in the matter is at a low ebb.

Therefore, when we come to sift this matter to its final analysis, we reach the conclusion that the remedy for the evils described lies in the hands of the people who are most affected by them. It is the citizen, the voter, who must settle his grievances at the polls. If the community has arrived at that stage of enlightenment that it realizes that its most vital institutions are in danger and are dwarfed by degenerating influences which have sprung up in their midst, the spirit of the community must assert itself and, if they choose, the people can and will work out their own salvation. In all matters relating to the care of the sick, the injured, and otherwise physically disabled classes, the leadership in enlightening and directing public opinion is the prerogative of the medical profession. It is they who, living in the suffering community, are best acquainted with its bodily as well as its moral ills. And it is they who, through their local, state and district societies, should initiate the movements in their respective states which are to carry on the necessary reforms. *The taint of politics when it touches a hospital permeates all of its departments; but, perhaps, in none more disastrously than in lowering the standard of surgery and the efficiency of its service.* It is the mission of the American College of Surgeons to improve and elevate the standards of surgery, not only in the person of the surgeon, but in his environment. Its interest and coöperation is undeniable and unavoidable in any movement that will contribute to the greater efficiency of hospitals by relieving them of obnoxious political influence. But the American College of Surgeons is a national body which can only exercise its power through its moral influence. It has no disciplinary authority over the hospitals which it investigates and classifies, but it can stamp its approval or disapproval of their conduct, of their worth or worthlessness, by publicly rating them as they deserve. The College can also materially assist a good cause by a rigid scrutiny of the qualifications of the surgeons working in the doubtful or suspected institutions, who may apply for Fellowship. The College can render great and effective service by its open denunciation of any political principle or policy that utilizes hospitals and allied institutions for the distribution of partisan patronage, or the exhibition of political privilege. It can just as pertinently denounce the politicalization of hospitals as a pernicious practice, as it has condemned and set its foot upon the immorality of fee-splitting. The College should be willing and ready, at all times, to lend its aid and support, by its counsel or through the voice of its authorized spokesman, to any movement headed by the leaders of the medical profession, the representatives of organized medicine and all the elements of the community concerned in the betterment of the public hospitals. When the discontent and protest against existing conditions will have found full expression in the pronouncements of the medical societies and other representative organizations, it will then be time to prepare a legislative program that will be calculated to amend the defects in existing laws.

Whatever the plan or method of administration that may be best suited to meet the requirements of the institutions involved, in any given state, they will have to be suggested by the individuals whose knowledge and experience in the needs of that community, best qualify to formulate them.

THE RESPONSIBILITY OF THE FELLOWS OF THE AMERICAN COLLEGE OF SURGEONS IN HOSPITAL STANDARDIZATION

LEROY LONG, M.D., F.A.C.S., OKLAHOMA CITY, OKLAHOMA
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WHILE hospital conditions have been greatly improved during the past few years, I have the impression that the passive attitude of many Fellows of the College is doing much to hinder standardization. Having that impression, I wish to submit this proposition:

The Fellows of the College ought to actively support the standardization of hospitals, because without the application of its principles the hospital cannot properly perform its functions.

What are the functions of a hospital?

The functions of a hospital are to render capable, honest, conscientious professional service in the preservation of health and in the prevention and cure of disease and abnormal conditions, and to contribute in every appropriate way to the science of medicine. The responsibility for the proper performance of these functions rests primarily upon the staff, the professional nucleus about which all other activities of the hospital revolve. The very first requirement, then, should provide that only capable, honest, conscientious physicians be permitted to undertake the performance of the professional duties of the institution. But even the right kind of staff cannot render the right kind of service without equipment and facilities for the examination and treatment of patients, and the recording of all data, nor can the hospital contribute in any valuable way to the science of medicine without such equipment and facilities.

What I have said briefly sets forth the present-day conception of what should be required by every hospital endeavoring to perform the functions that I have indicated. These requirements should be enforced by the hospital, not necessarily because any particular organization says it should be done, but for the obvious reason that in no other way is it humanly possible to render capable, honest, conscientious professional service, or to contribute in any valuable manner to the science of medicine. A hospital need not require more; if it requires less, it cannot be a real hospital.

I do not believe that any Fellow would undertake to disagree with these conclusions, and yet our observation brings us to the amazing realization that there are many hospitals in this country —some of them owned and operated by Fellows of the College, others in which the staffs are made up largely of Fellows—where the principles of standardization receive no more than luke warm encouragement, or no encouragement at all. Surely the Fellows working in these hospitals have forgotten the obligations they assumed when they were admitted to Fellowship.

In my judgment, the first and most important duty of every Fellow is to support and encourage his own hospital —the hospital in which he does his own work—in putting into effect these vital principles, without which the hospital cannot properly perform its functions. And I believe that every Fellow who does not regard the pledge that he signed as a "scrap of paper" will perform that duty.

The Fellows ought to support the requirements of standardization because they are reasonable requirements.

The chief concern of a hospital should be about the patient to whom it promises proper examination and treatment. These duties must be performed by the staff, and the records made up under the direction and supervision of the staff will show the character of the product of the hospital.

Even in the commercial world, where facts and conditions are not nearly so abstruse, careful examinations are made and accurate records kept. The railroad, for example, has shops to which damaged locomotives are sent for inspection and repair.

When a damaged locomotive goes into the shops, a history of the damage is secured. Then it is inspected by the experts in the shops. After a conclusion as to what is the matter with it, the locomotive is repaired, there being throughout all these proceedings a correlation of the facts derived from expert knowledge, laboratory tests, special machines, and instruments of precision. And at every step a record is made. When the locomotive is put back on the road there is a complete record in the shops.

Some years ago I happened to be in a court room while a suit in which a railroad was concerned was being tried. One of the allegations of the plaintiff was that a piston rod was defective on a certain date. The defendant brought the piston rod into court. On it were certain marks by which its identity was established through a record, kept in the railroad shops, supported by

the testimony of one of the experts. There were certain other marks, supported by a written record, that showed the exact date on which the piston rod had been in the shops, its condition when taken there, the repairs made, the date it was sent out, and its condition at that time.

As I sat in that court room, the thought that came to me was that if such careful and accurate work was desirable when an inanimate piece of steel was concerned, how much more reasonable it would be when human health and human life are at stake.

The Fellows of the College should actively support the requirements of standardization because they are just requirements.

The patient goes to the hospital because he believes that he will receive capable and honest care. Every informed physician, regardless of his membership in any organization, knows that it is only through the application of the *principles* of standardization that such care can be given. He knows—every one who has been granted the authority to practice medicine ought to know—that without the application of these principles the time spent in the examination of the patient is largely wasted, and that the treatment will be haphazard, uncertain, and unreliable. He knows that this is true, and that such neglect constitutes a grave injustice.

But there is a still more grievous injustice when the unsuspecting patient becomes the victim of the accursed traffic in sick and helpless human beings carried on in some localities by men who call themselves physicians. This is a sin against humanity that is prohibited not only by this College, but by the ethics of the medical profession.

Lives there a Fellow of the College so obtuse to the demonstrable results of logical reasoning that he does not believe that division of fees leads to injustice? Does he not know, that as long as surgeons and others doing special work pay commissions, trusting patients will be sold to them, regardless of their fitness or ability?

Not only is the division of fees an injustice, but I believe that it is the greatest obstacle in the way of standardization. The other requirements of standardization can be established by education; to establish the requirement in connection with the division of fees there must be regeneration of those who are steeped in its sins.

No one knows better than those engaged in this particular activity of the College that in many institutions the requirements of standardization have been enforced with difficulty. In several thousand small hospitals no effort at all has been made in that direction. Why is this? Is it because it costs too much to equip a hospital so that it will be acceptable? I do not think so. The necessary equipment can be bought on terms that bring it within the reach of the most modest institution. Is it because the average physician is lazy, and will not do the work necessary in the examination and treatment of patients? That is hardly the cause, for the average medical man, if there is not some counter-pull, rather delights in digging into a professional problem. But, in my judgment, there is a counter-pull of the most brutal and degrading character, and it is the division of fees. The sordid type of commercialism represented by fee-splitting is the bête noire of the standardization movement. The attack must be made at that point. If it is possible to destroy the practice of fee-splitting, the other requirements of the standardization movement can be put into application with relatively little trouble.

Notwithstanding his specious arguments, the man who practices the division of fees knows that he is violating the ethics of his profession, and the psychological result is that this step in the wrong direction makes him careless about all that is done for the patient.

If he disagrees with the individual who brings the patient to him, as to the necessity of a proposed operation, the consignor of the patient is offended—he is offended because he has in sight his part of the booty. The buyer of the patient, having degenerated into this low form of commercialism, does not wish to offend one upon whom he depends, and the operation is done and the booty divided, but not much more about the condition of the patient goes on paper than about the money trade. Criminals do not like to leave tracks. The object is to get the "swag" with as little ado about it as possible.

The responsibility of destroying this unholy practice rests largely upon the Fellows of this College. When we accepted Fellowship we signed our names to a pledge, and in that pledge we said that we recognized that the American College of Surgeons seeks to exemplify, enforce, and develop the highest traditions of our profession. We said in that pledge that, as a condition of Fellowship, we would live in strict accordance with its principles, declarations and regulations. In that pledge we said that we would regard the welfare of the patient above all, and that we would give our service to the poor freely. We said that we would avoid selfishness, commercialism, and money trades. And, finally, we declared that we would coöperate in advancing and extending the influence of the American College of Surgeons. We

signed the pledge, and it became the law of our professional lives.

As a Fellow of the College, not only should I keep my own skirts clean, but I should do all in my power to keep clean the hospital in which I have the honor to work. Not only must I avoid the sins of commercialism and money trades, but I must not condone such practices by associating professionally with those who do these things.

If every Fellow of the College would keep this pledge inviolate; if he would coöperate in every way in advancing and extending the interests of the College, the gloomy picture I have painted would be changed.

The responsibility for the success of the standardization movement distinctly rests upon you and upon me. We have voluntarily made ourselves amenable to the law of this organization, and the law requires that service at our hands.

What were our motives when we became Fellows of this College? Have we accepted this honorable distinction because we believe in the purposes of the College, with a desire to practice its teachings, always keeping the law? Or, have we been moved by the desire to secure prestige and respectability by standing upon the shoulders of men who conscientiously keep the law?

THE HOSPITAL, THE DOCTOR, AND THE NURSE AS CO-OPERATING FACTORS IN THE CARE OF THE PATIENT

WM. T. HENDERSON, M.D., F.A.C.S., Mobile, Alabama
Visiting Surgeon, Providence Infirmary, Mobile City Hospital

WITH the origin of the standardized hospital came the beginning of the end of needless surgery; the birth of the scientific institution was the death of the boarding house for sick people. As the idea began to take form, the whole surgical world seemed to be standing ready with open arms to grasp a plan which would help lift it out of the field of uncertainty to one of comparative certainty.

It is a great boon to the surgeon who is offered the service and protection of a standardized hospital. When he has placed his patient upon the operating table, with all the examinations made necessary for the diagnosis of this case, all that is required of him before he begins the operation is to write down with his own hand in ink his preoperative diagnosis. It is a demand made on us all, and is expected of the chief of staff as well as of the beginner in our wonderful art, that each must write down in ink, which will not rub out, *just what is believed to be the matter with the patient.*

The setting down of the preoperative diagnosis and the recording of the things found after the operation—even with the best surgeons—will often be found to be lacking in harmony, and this is for the patient's interest as it makes us all better diagnosticians and better surgeons. And now, lest a lay-reader should misconstrue the meaning here, allow me to explain that because the preoperative and the postoperative diagnoses do not always agree, it does not mean that an unnecessary operation has been done. This wonderful requirement made by the standardized hospital makes of the surgeon a better surgeon, as the best general is the man who can adjust himself to conditions as he finds them, is never surprised, but is ever ready in new surroundings to turn defeat into victory. *We do not know it all,* but are finding out more as the days go by, and we must ever bear in mind that while we are standardizing hospitals we are also standardizing surgeons—and close observation will demonstrate to all the marked improvement in the doctor who attends the monthly meetings regularly and reports his cases, and especially interesting is the defense put up for those who have died or left the hospital during the past month "*unimproved.*"

Another thing on the operating room chart which adds to the education of the surgeon is the space allotted to the pathological report where the operator is required to write down in his homely manner what he thinks of the tissues removed from the patient just operated, and this is so close to the space left for the skilled microscopical pathologist, who, in a few days, writes down the true description of the changes brought about by disease—that it is sometimes, to say the least, slightly embarrassing to the surgeon.

The operating room sheet has many other blank spaces to be filled out by the nurse in charge, including: a record of the names of the assistant and the anæsthetist; the opiate administered; the kind of suture material and whether or not a drain was used; and last but not least at what time the operation was begun and when ended, and the postoperative condition of the patient.

Before we leave the operating room, we are to write down in our own hand in indelible ink the most important thing of the procedure—*what was done*—and here the surgeon writes down for all time a story, a permanent record of the hospital where at some future time another healer may find a true record of all the changes brought about by our art, when he who made the record has preceded the patient across the river from whence no man returns.

In hospitalization of the sick no institution can be too well equipped, from the management to the medical staff, from the staff to the nurse, from the diet kitchen even to the cook—all must work in harmony for the welfare of the patient; and there must ever exist that kindly feeling toward her who stands vigil in the long hours of the night, when those who are sick suffer most, since through the agency of kindness, the best effort is given. We must in a firm and kind way have the patient understand that the hospital, the surgeon, and the nurse are one, working together for his welfare—one and inseparable they stand—never allowing him in any way to worm himself in between the factors created and managed for his benefit.

A remarkable illustration of unselfishness is to be found in the hospitals of the country, where millions of dollars are invested in the care of the sick, where we find the management ready to accept from a standardizing agency, such as the *American College of Surgeons*, a new influence requiring a yearly expenditure of thousands of dollars for expensive technicians, costly instruments, laboratory paraphernalia, a multiplicity of histories requiring numerous filing cabinets, and the necessary clerks—all that better service can be given to those who have fallen from the ranks in the struggle of life.

The hospital in every community should be the medical center from which the doctor and patient draw benefits which redound to the good of all. There should be no criticism by doctors against others who are fortunate enough to be staff members, as all doctors who have patients in our hospital are invited to the monthly meetings where interesting cases of any physician are discussed for the enlightenment of all.

In the organization of the staff of a hospital it seems necessary that at least the chief or chairman should be a member of the American College of Surgeons—as a member of the standardizing agency is better qualified to enter into the spirit which has done more for surgery, the patient, and all doctors, than any other factor since the advent of aseptic surgery and anæsthesia.

The good will of those treated is to be obtained by the earnest effort of all, as there is no recommendation better than the good word of a satisfied patient.

The standardized hospital, where there is offered the best of appliances, demands that the surgeon shall come up to the standard in the production of his work, and, in case of failure, the operator need not be told that his patients are not wanted in institutions with an open staff as he will observe that his surroundings are not happy for him, and will naturally go to the "Wild Cat Hospital" in many communities, where today most any doctor can do most anything most any time.

This deplorable condition exists and we must face the question squarely as *we*, the Fellows of the American College of Surgeons, are responsible for all this classification, and are equally held responsible for the shoddy work done in hospitals outside of our jurisdiction. The failure of surgical operations wherever done and however done will finally be laid at the door step of the American College of Surgeons.

We are growing strong enough now to demand that applicants for honors in the American College of Surgeons must submit cases only from the Standardized Hospital as other institutions are quite unable to supply the necessary data to entitle a man to Fellowship.

We naturally come to the questions: What is to be done with the boarding house for sick people, managed too often by charitable organizations and too poor to qualify even to the minimum standard? And what is to be done with the institution vicious in its effort to make money out of the ignorant and helpless, and managed too often by the mercenary doctor?

In the evolution of the "*Better Hospital*" it may be necessary in certain instances to resort to legislation to protect the people against themselves.

REPORT OF THE DIRECTOR GENERAL, FRANKLIN H. MARTIN

Historical

Small Beginnings of a Great Movement in Civilization

THE history of hospitals would afford a researcher in ancient and medieval archives an abundant harvest; and if touched by the pen of a romancer, it would reveal a picture of transcendent interest in human sacrifice and of devotion to the care of the unfortunate. Hospitals had their beginnings in the earliest days, when the shade of the low wall or the tree by the roadside was utilized by the wayfarer, and it was here that the worker or the pilgrim stopped exhausted in his illness and was cared for by his companions. If it were cold, the protected cave open to the sun, would be sought. Near by would be a spring, a pool, and running water, where the ill one could slake his thirst and bathe his body. When his fever had subsided and his illness had passed and the refreshed stranger was on his way, he would look back to his temporary refuge with satisfaction and tell his companions of his sojourn there and of his recovery. It became the first hospital, a place of healing, a pool of Bethesda. Hospitals had their beginnings when the warrior of old fell from the ranks, wounded or exhausted, and was cared for in some secluded glen by those of his fellows who were less severely stricken; they bound up his wounds, quenched his thirst, and gave him food. Hospitals had their beginnings when the pyramids were being built, and the master workmen were stricken or injured, and on the banks of the Nile, protected from the sun of the desert by the shade of a hut, they were restored to strength. Hospitals had their beginnings when the children of Israel fled from Egypt and their followers fell by the wayside in their weary trek, and when in their illness they were nursed back to health in the protection of a friendly rock, or were buried by unselfish hands. Hospitals had their beginnings in the dwellings around and about Jerusalem, when Christ healed the sick. They had their beginnings in the monasteries of the early Christian days, and later in the rooms provided for the poor and the sick by the Bishops. These monasteries and Bishops' homes were among the first distinct houses for the sick. Hospitals had their beginnings when every monastery had its infirmary and when the Hotel Dieu was founded in the 6th or 7th Century. They had their beginnings when the record speaks of a hospital in Spain at Mérida in 580 A.D.; when Charlemagne commanded in 800 that there should be a hospital connected with every monastery and cathedral; when Pope Innocent III, following the example of the development of hospitals in Jerusalem during the Crusades, planned the Santo Spirito in Rome in 1200, which became an inspiration to the churchmen visiting the Pope, and resulted in nearly every town of 5,000 inhabitants in France, England, Italy, Spain and Germany eventually coming to have its public hospital; when it was recorded that some of the hospitals of the middle ages were among their most beautiful buildings. Hospital progress continued in spite of the fact that it is said the greatest decadence of hospitals occurred in the 17th, 18th, and earlier part of the 19th Centuries. It continued from the early part of the 19th Century, when hospitals gradually developed into separate institutions; and with the advent of the microscope, modern pathology, Listerism, and scientific medicine the modern hospital came into prominence. It continued to the present, the first quarter of the 20th Century, when doctors, scientists, nurses, and laymen, are exerting every influence to bring the modern hospital to the highest peak of efficiency and service that science, art, and human endeavor can devise.

Inception of Our Work

Sound seed, good soil, and intense cultivation bring forth an abundant crop

The seed of hospital standardization, as it has been realized in this movement, was planted in 1913 when the committee on organization of the American College of Surgeons announced that "the College is concerned fundamentally in the matter of character and of training, with the betterment of hospitals and of teaching facilities in medical schools and hospitals, with laws which relate to medical practice and privilege, and with unselfish protection of the public from incompetent medical service."

A fallow field of great richness for the fructification of this seed was revealed when the College declared for a practical examination of its candidates for Fellowship in lieu of the traditional examination of candidates which, while proving

theoretical knowledge, had little value in showing a candidate's real fitness to do surgery. When we required our candidates to file for the inspection of our Committee on History Reviews, comprised of practical surgeons, one hundred case records of major operations performed by themselves within a reasonable time, and thus show their ability to accomplish successfully a definite act rather than to tell about it, the fallow field in which our seed was sown immediately became an object of great interest and of intensive cultivation.

The case records revealed deficiencies in the hospitals in which the work was done, and the hospitals were the first to appreciate the weakness of the situation. "What can we do to aid our attending surgeons, who are candidates for admission to the College, so that they may furnish acceptable evidence of their work?" In 1914 and 1915 the officials of the College were busy endeavoring to answer this question. The College organized committees of specialists who formulated a system of specimen record blanks which were available to all hospitals and were freely offered for copy or modification. With the advent of improved records, our Committee on History Reviews began to ask for more data on the laboratory, the X-ray department, and other diagnostic aids. The records were deficient in these requirements because many hospitals did not possess adequate facilities, or the laboratories were incomplete, not well manned and sometimes neglected. The hospitals again took the initiative and asked for advice from us. "What kind, and how extensive a supervision do you require?"

At first our advice was sought in a desultory manner. Later, requests became more general, and finally imperative. Fellows of the College interested in candidates urged us to furnish more definite instructions, not only to our candidates but to the hospitals as well. It soon became apparent that we were having a grave responsibility thrust upon us. The Regents of the College discussed the matter and we decided that the standardization of hospitals, because that was what it meant, would properly come under the supervision of the American Medical Association, at least so far as it applied to the United States. This suggestion was taken to the Chairman of the Committee on Medical Education and Hospitals of the American Medical Association, who spoke of the expense of such an undertaking, of the fact that the subject had been discussed by the Board of Trustees, and that they had decided not to accept the responsibility of the task. He was then asked if there would be any objection to our doing the work, and the reply was in the negative.

This left the College not only free to undertake the project if it saw fit, but quite definitely placed an important obligation upon its shoulders.

More than a year was given to the careful consideration of this problem, and in the meantime, by correspondence, conferences and writings, we aided the hospitals in improving their facilities.

During the hectic years of 1917 and 1918, the hospital program of the College developed. In the latter part of 1917 and early 1918, several plans were outlined and rejected. Finally one day, during the consideration of this program in its entirety, we decided that while we must always assume the attitude of advisers on this whole subject, the time had come for us to assume the responsibility of furnishing a definite standard to hospitals. Then arose the question as to whether our standard should specify the maximum or the minimum requirements for a hospital. To popularize our assumption of authority, and to make the plan workable, could we not accomplish more by a minimum standard, which would contain the fundamental requirements essential in every institution for the care of the sick, rather than a maximum standard which would necessarily be burdened with unessential details? This was freely discussed and in this revision we had the views of Dr. John Bresnahan, a practical hospital expert who at that time was serving on our staff.

The minimum standard was decided upon. It should be simple and direct and cover not more than one sheet of paper. The Minimum Standard of the College was written in 1917, later revised, and finally approved in 1918. This document has now achieved international fame. Its essentials are known to all qualified hospital authorities throughout the world, and because of its simplicity and comprehensiveness it is necessarily the basis for all other hospital codes or standards. The full text of the Minimum Standard appears on page 64.

In accepting the responsibility of furnishing a minimum standard for hospitals, the American College of Surgeons realized that it was assuming a task in a field much broader than that occupied by specialists in surgery; that the majority of hospitals were general hospitals; that its jurisdiction, to be effective, must include all branches of medicine in the general hospital. Fortunately the surgical specialties, if practiced to the best interests of the public, naturally draw on all branches of medicine.

We soon discovered that our influence in encouraging our reforms could not be conducted as a "talk fest" or through a "correspondence course." We would have to organize a team of surveyors who would actually inspect each in-

dividual hospital. The membership of the College at that time represented the United States and Canada. We could not inspect the hospitals of Massachusetts and Ontario and neglect those of California and Saskatchewan. Our undertaking was not only a far-reaching one, but one of stupendous possibilities, involving hard work, diplomatic procedures, and many disappointments, and we hoped, corresponding achievements. However, with a firm belief that our task was worth while, with a free and unoccupied field before us, with the enthusiasm of a youthful organization (unhampered by traditions) to support us, we made the plunge.

The Keystone

Cooperative efforts obtain cumulative results and irresistible momentum

There are many confusing foot-hills that frequently obscure the outstanding mountain peaks.

In our preliminary work in 1915, 1916 and 1917, we found encouraging initiative among many of the newer institutions in the smaller cities. Our work, to succeed, must carry also the approval of the older, well-established, and more independent organizations. We found the Catholic hospitals, many of them the oldest in the two countries, contained more than fifty per cent of all of the hospital beds of the continent. What would be their attitude toward a survey of their institutions by the American College of Surgeons? We had the sympathy of the Catholic Hospital Association, and its statesmanlike head, the Reverend Charles B. Moulinier, S.J. We decided to approach first the authorities of this outstanding group of hospitals. As we viewed it, hospital standardization, to succeed, must be looked upon as a spiritual as well as an educational movement. Why not enlist at the outset the support of the ecclesiastical leaders? This we did. An audience was arranged with His Eminence, J. Cardinal Gibbons, of Baltimore, in which Dr. J. M. T. Finney, and the speaker appeared, and we succeeded in deeply interesting His Eminence in our movement. After due consideration the following letter was received:

January the 11th, 1917.

My dear Doctor Martin:

It is a pleasure to assure you of my interest in and approval of your plan, as explained to me, for the standardization of the hospitals of the United States. We should make every reasonable effort to reach the highest state of efficiency possible in each hospital; and bend every effort to bring about such uniformity as makes for progress.

This plan gives promise of better results in the immediate future, and prepares us for any contingency that might arise that would throw a tremendous burden on the hospitals.

Wishing you success in your endeavors, I am

Very sincerely yours,

(Signed) J. Cardinal Gibbons,
Archbishop of Baltimore.

We received, also, the formal endorsement of the American Hospital Association, the Catholic Hospital Association, the Protestant Hospital Association, and the Board of Hospitals, Homes and Deaconess Work of the Methodist Episcopal Church.

The surveys

O wad some power the giftie gie us
To see oursel's as ithers see us!

Seeing is believing. Recorded research leads to exact knowledge.

The hospital surveys conducted by the American College of Surgeons are based on serious study, careful research, and eight years of experience. The experimental stage has been passed long since. The surveys are not based on correspondence, or guess work, but on facts carefully gathered by paid experts who are trained under the direction of a man who is a hospital organizer and a proved hospital administrator, and who, while a graduate in medicine, is devoting his life to hospital betterment. This man, our Director of Hospital Activities, Dr. Malcolm T. MacEachern, is a graduate in medicine of McGill University; he was one of the organizers and for several years the administrator of the Vancouver General Hospital and brought it to its present standing of one of the leading hospitals on the North American continent; for two years he conducted a survey of nursing as Director of the National Board of the Victorian Order of Nurses for Canada; and in 1924 he was elected President of the American Hospital Association. For the past two years this hospital expert has been devoting his full time to the American College of Surgeons as an Associate Director, and through his industry he has brought the hospital standardization department of the College to a very high state of efficiency.

His immediate associate, Dr. E. W. Williamson, also a graduate in medicine and with three years' experience in surveying hospitals, has charge, under Dr. MacEachern's direction, of our paid surveyors; and frequently Dr. Williamson is called upon to fill some of our most important assignments.

The survey of hospitals is conducted by young men recently graduated from approved medical

schools, who have served internships and have had experience in outstanding hospitals. These young men are carefully selected and specially instructed at the offices of the College, whereupon they are given a preliminary tryout, under an expert surveyor, in hospitals in the vicinity of Chicago, our home headquarters. These men are paid a salary and expenses. They are instructed to gather facts, based on carefully prepared questionnaires that can be filled in impersonally. These blanks, together with a diary letter giving supplementary information which may be considered by the surveyor to be of importance, are carefully reviewed by a group of experts at the College headquarters under the supervision of the Associate Director and his assistant. Frequently there is a follow-up correspondence with the superintendent or other authorities of the hospital visited. Through these means we are able to judge accurately the institution's condition. Our surveyors are cautioned against entering into controversies, and they are instructed to conduct the survey in such a manner that there can be no accusation of spying. The survey must be accepted not only cheerfully, but welcomed by the hospitals.

The visit of the surveyor is preceded by a letter informing the hospital of the prospective visit and the probable date thereof. In the early surveys a definite propaganda by advance correspondence and circulars prepared the hospital authorities, and did much to gain their support. I speak of all of this detail because it must not be taken for granted that our work could have been successful if we had not cultivated amicable relations first, and avoided, notwithstanding our inexperience, any semblance of unwarranted authority. Our work was accomplished without friction because we were successful in creating and maintaining a sympathetic public opinion.

The primary survey was begun in 1918. It was confined to the hospitals of one hundred beds and over. The first preliminary report of the survey was to have been made at the hospital conference in connection with the Clinical Congress of the American College of Surgeons that was to have occurred in New York in November, 1918. This Congress was postponed because of the epidemic of influenza.

In October, 1919, we had printed our first list of approved hospitals. This report was to have been released at the hospital conference held in connection with the postponed Congress of that year. The task of preparing this list was stupendous, and its showing was so unsatisfactory, with its many embarrassing omissions of prominent hospitals, that it was decided the night before the conference to suppress the printed report, though it was ready for distribution, and satisfy ourselves by announcing only the number of approved institutions among the 692 hospitals which had been surveyed, without mentioning them by name, and reserving the distribution of a revised, detailed report until the following January. At midnight the printed lists containing the names of the embarrassingly too few hospitals of our first preliminary formal report, were solemnly cremated in the furnaces of the Waldorf-Astoria Hotel. Out of a total of 692 hospitals, this survey, as finally revised, revealed but 89 hospitals which had met with approval.

Lack of funds for a more extended work confined our efforts to hospitals of 100 beds and over until 1922, when we included in our survey hospitals of 50 to 100 beds. In 1924, at the request of the U. S. Veterans' Bureau, we surveyed the hospitals under its jurisdiction; and this work, by request, has been expanded to include other governmental hospitals— those under the supervision of the Army, the Navy, and the Public Health Service. Our survey also includes, by request, the hospitals of the National Home for Disabled Volunteer Soldiers. In 1924 and 1925, as shown in the summary, the College visited and rated 327 of the hospitals of 35 to 50 bed capacity. A summary of the sight surveys made by the college appears on page 49.

FINANCING

Following is a summary of the expenses incurred by the College in its campaign of hospital standardization:

1915–1916 (estimated)		$ 10,000
1917	"	30,000
1918	"	30,000
1919	"	60,000
1920	"	64,000
1921	"	60,000
1922	"	60,000
1923	"	72,000
1924	"	85,000
1925	"	61,000
		$532,000
Overhead for three years (approximate)		20,000
Total		$552,000

Of this sum $447,000 has been contributed by the College, drawn from the dues of its Fellows and the interest on its Endowment Fund. $105,000 was generously contributed by the Carnegie Corporation of New York, extending over a period of five years.

Staff Meetings

TEAM WORK AMONG HOSPITAL STAFFS ENCOURAGES CONSULTATIONS

Genuine staff meetings in the conduct of hospitals, one of the fundamental requirements of the American College of Surgeons in its minimum standard, have been of outstanding value in assuring safety to the patient and in stimulating the medical staff to practice scientific methods. These staff meetings analyze the records of patients and bring to light faulty technique and errors of judgment in diagnosis and treatment. A complete analysis cannot be made without the findings that are obtained in the diagnostic laboratory. These analyses will reveal the perfection or neglect of coöperation in administration, nursing, the laboratory, the surgical service, or the medical service. Finally, the development of team work and sympathetic consultations, which are of the highest advantage to the safety of the patient, are the ultimate and desirable results of genuine staff meetings.

Staff meetings, with their records which should be subject to review by the governing body or board of trustees of the hospital, are the safeguard of the public. Incompetency, ignorance and carelessness cannot thrive in the light of group supervision. Dishonest methods will not survive the spotlight of properly conducted staff meetings. After one or two frank discussions in which incompetency or mistakes have been revealed, the conscientious practitioner in the hospital will be careful to ask for consultation and to give his patients the benefit of the combined resources of his institution. The monthly surveillance of a staff conference will create an atmosphere in which a dishonest practitioner will become uncomfortable; and in consequence he will either change his methods, or seek more congenial quarters.

ESPRIT DE CORPS OF APPROVED HOSPITALS

Whenever hospital administrators, efficient nurses, or the progressive medical profession get together, a discussion finally develops which has for its object the betterment of hospitals. Not only in the United States and Canada, but in the Latin American countries, in Hawaii and the other islands of the Pacific, in Australia and New Zealand, and particularly in England, Ireland, Scotland, and Wales, it has become an obsession to discuss the hospital situation as brought about by our movement, based on our minimum standard.

The most encouraging and remarkable aspect of our program is the rapidity with which it has taken possession of the public. This is fortunate because interest begets support. I venture to say that no hospital located in a prosperous community has had difficulty in gaining the financial support that is required to develop the ideals of our movement, and to make these ideals come true. Hospital betterment, even hospital expansion, is one of the most impelling appeals to the pocketbook of rich and poor alike. The most worthy, the most thrifty, the most sensitive individuals, may through illness and no fault of their own become hospital patients without financial means. The most discriminating philanthropist can formulate no excuse for rejecting the claim of these unfortunates.

Fee-splitting

CRIMINAL PRACTICES CANNOT SURVIVE THE SPOTLIGHT OF HONESTY

In the foundation of the American College of Surgeons it was determined, by announcement at its organization meeting and by a unanimous, affirmative vote of the four hundred surgeons in attendance, that the College should oppose by every legitimate means the crime of fee-splitting.

Fee-splitting, as conceived by the College, is a transaction for financial gain practiced under a contract, understanding, or by consent, silent or spoken, through which a portion of the compensating fee that a specialist or practitioner receives from a patient (presumably for his own services) is paid directly or indirectly to another individual or agent who was influential or instrumental in bringing the patient to the specialist or practitioner for operation or treatment.

The transaction which is carried on under various subterfuges means, when reduced to its simplest interpretation, the buying and selling of patients on a commission basis, usually with little or no consideration for the kind of service rendered, nor to a scientific knowledge of the patient's disease or condition. The moral obliquity on the part of both parties to this transaction is such that it naturally biases any scientific knowledge or medical or surgical judgment that either party may possess. The criminal aspect lies in the fact that ingenious subterfuges that are not easily recognized are resorted to by those who are most successful in this practice, as they desire to avoid the penalty of adverse public opinion or professional ostracism.

This nefarious trade is usually carried on between a practitioner in a country community or an internist in a town, and an aspiring surgeon, young or mature, in a small or large city. The latter as a rule has obtained an appointment on

the staff of a general hospital, or he conducts a private hospital. Often he possesses some technical ability of a spectacular, slapdash character, and he has the reputation of being a wizard in miraculous snap diagnosis, and particularly of agreeing with the diagnosis that has brought the patient to him. The business transaction is easily arranged because of the coöperation of the "trusted family practitioner." The fee is as large as the patient's resources will stand. The "trusted doctor" often accompanies his patient to the surgeon and not infrequently the doctor is entrusted with the patient's pocket-book, pays the surgeon's fee, and sometimes the hospital expenses. There is an arrangement whereby the doctor receives his percentage of the fee directly from the surgeon, or conveniently he retains his portion, and in making his accounting to the victim, he does not reveal the fact that the specialist's fee was shared by himself. On the contrary, he may charge in addition a substantial fee on his own account. However, many times this personal fee may not be charged, and even hotel and traveling expenses remitted, thereby creating a reputation in the home community for great generosity on the part of "the doctor" who apparently volunteers, as a neighborly act, to take his patients to the city without remuneration or even compensation for traveling expenses. And consequently the honest competitor must suffer both financially and in reputation because in dealing with his patients he submits a reasonable bill for services rendered. When these fee division arrangements are well established, the transaction may be carried on by correspondence, and various subtle methods adopted to create a semblance of straight dealing. The practitioner may be designated as an assistant when in reality he is present only as a spectator; and the surgeon eases his conscience by placing on his receipted bill: "For services and assistance." Why is not the transaction carried out openly, inasmuch as the patient expects to pay for the legitimate services he received?

The College is endeavoring with all of the influence of its organization to enlighten the public about this disgraceful practice which, we are glad to say, is on the wane. If the layman will insist upon a separate financial transaction with his physician, and also with his surgeon, and receive a bill from each and remit accordingly, one source of the illegitimate deal will be discouraged. In its opposition to fee-splitting the College recognizes that the practitioner as well as the surgeon is worthy of his hire. A promise is exacted from each member of the College, through its Fellowship Pledge, "to shun dishonest money-seeking; . . . . to refuse utterly all money trades with consultants, practitioners or others, to teach the patient his financial duty to the physician and to expect the practitioner to obtain his compensation directly from the patient. . . . "

Why should not the family physician receive *directly from the patient* compensation for services, including legitimate expenses incurred in accompanying the patient to a surgeon or other specialist? Does the physician enter into these dishonest transactions because he desires to receive double compensation through a secret deal? Why does the surgeon or specialist cultivate transactions whereby he is the collector of one fee, which he must in turn divide with the physician? Is it not to obtain the exclusive business of the physician by giving him a large percentage of a large fee? In gaining the exclusive business of the physician does the dishonest specialist operate on all patients brought to him, without reference to the correctness of the diagnosis as furnished by the physician? Can one conceive of a situation more dangerous to an unsuspecting community than to have in its midst one of these dishonest, fee-splitting practitioners, unless it be a hospital which is innocently harboring a dishonest specialist who is buying the practitioner's business through these questionable transactions?

Is it not obvious that this mercenary business could not be carried on in a standardized hospital unless the entire medical staff and administrative force were dishonest? The records, the laboratory findings, the diagnosis, the staff meetings, the post-mortems, the personal associations, and the reputation of the clientele must inevitably lead to suspicion and exposure, and cause the dishonest specialist to seek more congenial quarters.

Each year the College disseminates publicity to the profession and the public, giving the result of its yearly survey together with a list of the hospitals which have met its minimum standard. Through this means it has done more to make difficult the path of the fee-splitter than through any one other factor of its work. Members of the staff who cannot bear the light of case records, staff meetings, laboratory findings, and enlightened bookkeeping have lost prestige. Hospital officials who have neglected to follow the progress of this movement have found themselves without following and have been forced to close their institutions. As the work of the College becomes better known, as its genuine disinterestedness is appreciated, and as the hospitals are recognized by the layman as his reliable refuge in time of illness, institutions for the care of the sick will more and more desire to bear the stamp of approval.

The Board of Regents of the American College of Surgeons is in dead earnest in its declaration opposing fee-splitting. The medical staff of practically every hospital on the continent has upon it one or more Fellows of the College which institution requires that each one of its Fellows, as a requirement for membership, shall sign a pledge as follows: "Upon my honor as a gentleman, I hereby declare that I will not practice the division of fees, either directly or indirectly, in any manner whatsoever." The by-laws of the College provide that a Fellow may be expelled for any infraction of this oath or other unethical practice or conduct which in the opinion of the Board of Regents is derogatory to the dignity of the College or inconsistent with its purposes. The College will welcome and act upon information that will furnish proof of one of its Fellows violating his pledge.

The American College of Surgeons, in accordance with the minimum standard, further requires that every approved hospital shall file evidence at the College that "the practice of the division of fees under any guise whatsoever, be prohibited." No hospital which is reputed to harbor fee-splitters on its staff, and which is unable to furnish satisfactory proof that this reputation is unfounded, will be accepted and listed by the College as an approved hospital. No hospital can remain on the approved list of the College if there is a persistent rumor of fee-splitting and the institution cannot furnish satisfactory evidence to the contrary.

Small Hospitals

WHAT'S WELL BEGUN IS HALF DONE

The inability of the College of Surgeons, because of lack of funds to survey and classify the hospitals of from 25 to 50 beds, has seriously handicapped these smaller institutions. In many instances it has involved a real tragedy. The public looks forward to our yearly announcement of the approved hospitals. When a hospital in a particular community fails to appear upon that list, the question naturally is asked: "Why not?" After perusing the literature which accompanies our announcement, and studying our standard, there is more mystery and chance for error in judgment. The careful explanation that our list contains only the larger hospitals may be overlooked, or it may not be realized that our rating does not include hospitals as small as the one in which they are interested. The most obvious point is the fact that for some reason their hospital is not on the approved list, and it may be embarrassing to the authorities of the institution if they are asked for the reason, because until their institution is surveyed one cannot be sure that it would meet our standard. If the people have appreciated the importance of our approval, they may in seeking service or in distributing contributions pass by the small hospital that has not been surveyed and go to a larger one which has met the approval of the College. Young women seeking nurses' training hesitate to go to an unapproved institution, and this is also true of the medical graduate who is seeking an internship.

The American Railway Association has urged its 14,000 surgeons to select for their patients hospitals approved by the American College of Surgeons.

While these circumstances are embarrassing to the small hospital, a more serious difficulty is the fact that these community hospitals, oftentimes serving exclusively a given territory, have not, through lack of information or initiative, the facilities that are considered necessary for the proper care of the sick. Frequently this condition of affairs exists when a few words of advice and a slight readjustment of the institution would make it an approved hospital, capable of giving the best service. Unfortunately, occasionally the hospital in a small community will fall into the hands of incompetent individuals, and be dominated by dishonest or unskilled practitioners. It is true that this is less likely to occur in a small hospital, which is the only hospital in a limited community, than in a small hospital of the private type in larger communities, where other larger and approved hospitals exist. While there are exceptions to this rule, and occasionally an exclusive and highly specialized hospital of the smaller type exists in a large city or community, and its superiority justifies its existence, the smaller hospital in the large community is liable to be a refuge for dishonest and ignorant practitioners who cannot maintain themselves on the staff of one of the larger, approved institutions of their city.

The importance of small hospitals in the United States and Canada is shown in the fact, according to our estimate of last year, that the hospitals of between 25 and 50 bed capacity, more than 1500 in number, represent 47 per cent. of the total hospitals, with beds aggregating 48,728.

These smaller institutions are asking for our survey and rating for the satisfaction and safety of the thousands of individuals who depend upon them for hospital service, and some means must be found by which the College may satisfy their request and fulfill this obligation. The College believes that these institutions, with adjustments that will not incur prohibitive expense, may enter

into the approved class. The difficulties of maintaining a laboratory service, of conducting staff conferences, of securing proper records, and conducting a hospital on a high ethical basis can be surmounted in a satisfactory manner. In these smaller communities there exists a personal pride in their institutions that it is difficult to obtain among the distractions of the larger towns and cities. There is a concentration of effort among the people, their chosen trustees, their administrative departments, and their nursing and medical staffs, that insures a harmony of team work that is so desirable from the standpoint of the patient. The smaller organization is in closer touch with its every department, and it is difficult for an unworthy individual to carry out a nefarious practice without the risk of exposure. There is no place where greater moral influence can be brought to bear upon the practice of fee-splitting than in these small communities.

Our Responsibility

RESPONSIBILITY WALKS HAND IN HAND WITH CAPACITY AND POWER

This large and attentive audience, deeply interested in all phases of hospital betterment, is a flattering testimony to the officers and regents of the American College of Surgeons because it shows that the hospital world has confidence in their leadership. Your speaker, and many of the Fellows of the College, have been gratified to observe, when traveling in foreign lands, that our efforts have been appreciated and that our methods are found worthy of imitation. The medical and surgical profession of the world is gradually appreciating that the perfect model for general hospitals, accommodating and serving all of the public, has evolved through the efforts of the United States and Canada, and that our program is and has been the influencing agent that is fast bringing these hospitals to higher perfection and general acceptance.

This being true, let us not for one instant flatter ourselves and lapse into complacency, but let us hasten to give credit to those combined influences which recognized our ideals and made our program succeed by their coöperation. The evolution of hospitals will become one of the great historical facts of future medicine, and its success will be attributed to the initiative of the medical profession and to the coöperation of the lay public. A great need brought forth a great plan; the idea in the minds of an earnest group of surgeons resulted in ideals; and these ideals created a vision the desirability of which was so obvious that the coöperation of the rank and file of the members of the American Medical Association and the Canadian Medical Association was enlisted, and with our efforts and this assistance, and with the active coöperation of the American Hospital Association, the Catholic Hospital Association, the Protestant Hospital Association, and the Board of Hospitals, Homes and Deaconess Work of the Methodist Episcopal Church, the imagination of the public was fired and our following became continental and universal. This conversion to an ideal has brought forth a harmony of purpose of all of these forces, and the development of our plan has been a success. In sharing the satisfaction that comes from successful effort and that brings with it responsibilities, do not forget that we are engaged in furthering a stupendous movement; that movement is dependent upon momentum; and that momentum cannot be sustained without continuous force.

THE EMINENT HOSPITAL

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I HAVE been thinking of that subject for several months. I thought I had formulated pretty clearly in my mind what an eminent hospital was, but as I sat here this morning, listening to the very illuminating addresses which have been made, I gradually came to the conviction that there are no eminent hospitals. The public hospitals can hardly be such, if much that Dr. Matas has said is true—and I think we all know that it is. The small hospitals which we have heard about are questionable; the Government hospitals are good in large proportion; the community hospitals seem to be coming along nicely; the religious hospitals, those conducted by religious communities, perhaps carry off the palm, as I summarize what has been said here.

Many influences have been mentioned which will conduce to make the hospital what it ought to be. Publicity is one of them. I remember well that first meeting in Chicago, where the three hundred or four hundred people gathered were told that this movement, called the Standardization Movement, must be made to reach the public by every possible means of legitimate advertising, or better, distribution of information; and the College of Surgeons has been traveling all over this country for the last eight years, trying to tell the public, trying to tell the medical profession, its own Fellows, what they should do to make hospitals right, to make them worthy of standardization.

All of these influences, put into action, will do a great deal to make our hospitals, from top to bottom, from the largest to the smallest, what they ought to be!

Is that a definition of an eminent hospital—to be what it ought to be? Yes, if we could all agree on what is meant.

I am going to tell you what it seems to me the eminent hospital should be. It should be an institution in which every man and every woman has eminence in his or her mind, in his soul, spirit, conscience, knowledge, and skill! Will it ever be that every doctor on the staff and every nurse and every superintendent and supervisor in the institution, every technician, will be eminent? I am afraid not, unless we can give that word a definition that brings it down to something like an average.

You cannot remake human beings. The best school in the world today is turning out inferior men, scientifically, and in character and conscience, and it cannot be otherwise. The schools are working up and up and up and up; they are trying to make their output what it ought to be, but they know that there will always be failures, even in those who pass, get their license, and have a name, perhaps.

We cannot expect that every man and every woman concerned with the upbuilding of the hospital be eminent in the distinctive sense of the word, but we can expect, I think we must expect, I believe we should demand that every one in the hospital, every member of a staff, every member of the nursing force, every technician, every manager, have a strong tendency and a determined effort to know hospital science and hospital art.

I wonder if we all realize that during the last eight or ten years the Council on Medical Education, the American College of Surgeons, the various Hospital Associations, have been developing a very clear, a very definite science of hospital administration in all its phases. Ten years ago no one would have talked as these men have talked to us today. Ideas had not been formulated; thought was not crystallized as it is today. Conscience was not formed as to what a hospital ought to be. We all had vague notions, vague impulses; good, high purposes, but we are just beginning, as I see it, to realize that there is a new science forming in the medical profession, in the nursing profession, and in the hospital world, and that science is, how to make an eminent hospital, a great hospital, a reliable hospital, a scientific hospital, a conscientious hospital, a hospital in which every one concerned knows his or her job from beginning to end. It is out of this fact that is growing today academic crystallization as to hospital construction, hospital planning, hospital administration, hospital organization, the law as affecting hospitals, and hospitals and public health, hospitals and the community—all the science that we have been talking about, which is in hospitals and waiting for formulation is now being organized into courses, and is being taught in one college. Let us hope there will be several more before many years.

Are you familiar with the growth of the professions; do you know how the medical profession

has grown, how the legal profession has grown, how the clerical profession has grown, how the engineering profession is growing now, how the business profession is growing, out of such a process as that in which we are all engaged—thinking, discussing, writing, and formulating the science of the hospital.

You might put Dr. Crile and Dr. Mayo and all the rest of the great surgeons here into a hospital, to do the surgery, and you would not have an eminent hospital, though you would have there eminent surgeons. Why? Because the hospital is a unified, coöperating and carefully planned institution that works day and night and that aims at giving the highest possible service to every patient who comes into it, regardless of what conditions of life or circumstances of position the person may be in.

Therefore, as I see it, the eminent hospital is the hospital with an eminent hospital spirit, a determination to do its best with every patient. That best will go on improving from year to year, will grow as medical knowledge and skill grows, will grow as the study of hospitals becomes deeper and more thorough and more widespread; and then the outcome will be eminent hospitals, even though there may be no one eminent man, in the technical sense of the word, on its staff, or eminent woman within it, helping in the administration, helping in the nursing, helping in the technician's work. The eminence of the hospital is going to be institutional.

I have seen and you have seen hospitals with eminent men in them, in the past, which were not eminent hospitals. You know that well. There was eminent work done as far as that individual was concerned, yes, but unless he did all the work, unless he absolutely controlled and dominated and directed the nursing, and all the rest of the care of the patient, there was just one streak of eminence in the hospital, and it was not fair to call it an eminent hospital. It became a famous hospital, spoken of all over the country, perhaps, or the world, but it was not an eminent hospital, and such a hospital, if there was one in the past, in order to become eminent, must have the spirit that has been set down in definite one-two-three order by the College of Surgeons. It isn't because they have set it down, as has been said here today, but it is because these minimum standard points were worked out by the medical profession, by the nursing profession, by the hospital people of the continent, that that standard will make an eminent hospital, in spite of the lack of eminence of some of the men and some of the women, provided they are big enough, in their grasp of hospital science and in their personal moral and religious character, to get together, to see to it that every record made of every patient is a genuine scientific document that will last for all time, as a mirror of the scientific knowledge of today. Then, when the staffs and the whole hospital personnel will get together regularly, weekly, bi-monthly or monthly, and investigate the work they have been doing during the past period for their patients, it will lead in the direction of an eminent hospital.

Oh, it is all so simple in theory. You have heard about records until you are tired hearing of them, but, gentlemen, go home to your hospitals and find out whether you have any real scientific documents in your records, and if you haven't, tear them up or burn them up, because they are not worthy of the name of record.

Then watch your conferences; see how genuine they are, how sincere they are; how truthful they are, how manly they are, and if you find any of these qualities lacking, say to your own soul, "This is humbug. This isn't what the College of Surgeons wants. This is just a make-believe, this is just fulfilling the letter of the law. We are not finding out what we, as an institution, every one of us and all of us combined, have done for our patients day by day during the past week, two weeks or month. We are just here as actors. We are not here as real, genuine, scientific, conscientious, determined members of the staff of this hospital. We are just making the authorities think that we are."

Now, gentlemen, there will be no real eminence, there will be no real scientific attainment of any kind in hospitals until the records first, and then these conferences are made true, genuine, sincere, manly, professional performances!

I am afraid there aren't many such hospitals today; and if that is true, there aren't many eminent hospitals, because these two requirements of the American College of Surgeons are absolutely basic for any touch of eminence. I don't care what kind of a surgeon, what kind of an internist, what kind of a superintendent, what kind of nurses you have, if you don't get down to absolute fundamental truth in regard to what you are doing for your patients, by way of careful, conscientious, laborious diagnosis, and then establish the treatment indicated, you are not having one spark of eminence in you. You may have some skill; you may have some aspirations; you may have some pretense; you may have wonderful buildings; you may have all the equipment in the world, but there is a soul lacking in the hospital that does not face the facts.

WHAT THE AMERICAN COLLEGE OF SURGEONS CAN DO FOR THE SMALLER HOSPITAL

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THOSE familiar with hospital development were startled at the courage of the group of surgeons, hospital administrators, and representatives of various medical organizations who met in Chicago at the request of the College of Surgeons just eight years ago for the purpose of setting a standard for hospital service. All were agreeably surprised when a simple standard was adopted providing only for those fundamental principles which insure the patient safe treatment, with a requirement for a signed pledge against the division of fees, under any guise whatsoever. The standard was simple but adequate to reach the source of bad hospital practices. The first survey was made in 1918, and even with this very reasonable requirement, it was found that only 89, only 12.9 per cent., of the 692 hospitals of one hundred beds or more were approved. The subsequent development of the movement may be appreciated by the fact that this year, of the 995 hospitals surveyed in this class, 879 or 89.3 per cent. are approved. The College has had a tremendous influence over larger hospitals, thereby benefiting hundreds of thousands of patients. The work in the larger hospitals had its effect in the smaller hospitals. The first survey of hospitals of from 50 to 100 beds made in 1922 revealed that 41.3 per cent. were worthy of approval, as compared with the 12.9 per cent. in the survey of 1918, of hospitals of one hundred beds and over. This movement has undoubtedly contributed much in the lowering of the death rate in this country.

The growth of the hospital field in America is remarkable. In 1873 there were only 149 hospitals, and today, according to statistics just compiled by the Modern Hospital Publishing Company, Inc., released about the first of the year in the 7th annual Year Book, we find 6694 active hospitals of more than ten beds, and according to the statistics of the American Medical Association there are 665 of less than ten beds, a total of 7,359, or an increase of 4,492 per cent. The increase in population over this same period was only 285 per cent.

For years hospital service was confined to large cities. But now we find 63 per cent. of our hospitals in cities and towns of less than 25,000, 49 per cent. being in towns of less than 10,000. Less than 40 beds are found in 52 per cent. of all hospitals, very few of which have been surveyed by the College. It is estimated that 1,250,000 patients are cared for annually in this class of hospitals. During the past two years most of the work in standardization has been in connection with hospitals of from 35 to 100 beds, and this year of the 1279 surveyed in this class, which includes 75 per cent. of all hospitals, only 466 were fully approved, and 129 conditionally approved. It is significant that the percentage of hospitals meeting the minimum standard in this group is not increasing in comparison with the surveys of the larger hospitals. However, enough have met the standard to convince even the most pessimistic that it can be done by the smallest hospital.

Someone has compared the hospital to a public service corporation. This comparison is just. It was found necessary to regulate such organizations by law to protect the pocketbooks of the public, and who will compare lives with dollars. The hospital public must be protected, but legal protection should come only as a last resort. The result of political interference in hospitals has proven to be dangerous. Only members of the medical profession are able to judge hospitals, and such men are not always interested, or at least not consulted, in political matters.

The trust of the American public in the hospital is reflected in the two hundred million dollars being expended annually in the construction of hospitals. In practically every hamlet hospitals are found, and, as a rule, are given unquestioned confidence. It is necessary for the medical profession to see that this normal trust is deserved. The patient in most instances selects a hospital upon the recommendation of his physician. If the physician is a man of ideals he will feel comfortable working in a standardized hospital and will carry out the principles of standardization regardless of the hospital. The patient feels that his doctor will protect him or his family, even from the hospital. He knows nothing of the practice of selling patients to the highest bidder.

Eventually, when this program of standardization is understood by the lay people, the patient will select only those men permitted to practice in approved hospitals.

Hospitals are divided into three distinct groups:

1. The private hospital.
2. Those under the supervision of some re-

sponsible organization, such as the church and fraternal organizations, industries, associations, etc.

3. Public hospitals.

In the private group we find:

A. Those hospitals owned and operated by men of ideals and ability who, residing in outlying districts, found it necessary to build hospitals in order to give their patients proper care. These hospitals are operated in the interest of the patients' welfare and, while many are not standardized, the fundamental principles are adhered to, and the patient is properly safeguarded. These should, and will be, standardized for their own protection.

B. Hospitals built by men of the profession who are without ideals or ability, but who realize the growing trust on the part of the public in hospitals and undertake to establish a commercial system by means of which to prey upon the innocent public. This hospital is a source of legalized murder and should be entirely eliminated.

C. Hospitals built purely as a commercial venture by others, not members of the profession, ignorant of, or indifferent to standards, taking advantage of this public trust, and admitting all classes of the profession, even members of cults, usually catering to those without ideals. This hospital sends its mistakes over the hill, without question, and should be dealt a death blow for the protection of the public.

D. The so-called private clinic. If organized with sufficient financial backing to serve the rich, the poor, and the great middle class it is of value, but it is too often operated with a view of commercialism, rather than science. It is attractive to the public, and is either the source of great good or evil, depending upon the viewpoint of those responsible.

In the second group we find:

A. Hospitals under the control of religious organizations, built with a view of rendering real Christian service. The church as the basis of all ethics, and as the founder of hospitals, is above all trusted by the public and, therefore, is morally bound to meet any standard having for its purpose the welfare of humanity. Such a hospital must conform to all standards, if it is to have the respect of the public. Still, even in hospitals bearing the names of great religious denominations, unethical practices are carried on, usually without the knowledge of those responsible.

B. Those operated by fraternal organizations, which also in their nature approve ethical standards. These hospitals may be reached through the organizations responsible for them. It is encouraging to know that the responsible heads of all such hospitals have pledged their support to the program of the College.

The public group.

A. The public interest in hospitals has been reflected through those in public positions and many counties, municipalities, and even states, have expended enormous sums for hospitals to bring what they believe scientific care to the poor of the communities. These, too, are a source of great danger, unless controlled by those of ideals, familiar with recognized standards. Too often they are under the control of the political doctor, many times used to the private gain of certain physicians, and to the loss of the tax-payer. In two provinces of Canada laws have been passed, containing the principles of standardization of the College of Surgeons, for all hospitals receiving public aid.

B. Then we have the so-called community hospital, organized not only for the poor, but to bring scientific consultation within the reach of the middle class, caring not only for the general patient, but for the tubercular, contagious, and chronic patient. These hospitals, when aided by county funds, and meeting the standard, are the ideal type of small hospital, and should be the aim of all communities.

All of the above types of hospitals are included in the 4,710 hospitals of less than 50 beds, and a great majority of them in communities of less than 10,000. The importance of the hospital cannot be based upon the bed capacity. A hospital of ten or twenty beds in a small community, may be, because of its strategic position, as important as one of a hundred beds in a large city. It must be remembered that many of these small hospitals serve large rural areas, furnishing the only hospital facilities for such a district. Only sixty hospitals of less than 50 beds were approved during the last survey.

The development of the small hospital must not be discouraged. Dr. Colwell, the secretary of the Council of Medical Education and Hospitals of the American Medical Association, in an address before the American Hospital Association, expressed the opinion that the small hospital is the only agency through which the well-known prob-

lem of the shortage of physicians in the rural communities can be met, calling attention to the fact, that the medical graduates of today appreciate the need of the hospital in diagnosis and treatment and will hesitate to locate where such service is not available, referring of course to those hospitals equipped with X-ray and laboratory facilities. These younger men with their training in the use of such facilities can also serve the small hospital as well, eliminating the necessity of having trained technicians for the operation of such departments.

In the original meeting called for the purpose of organizing the standardization movement, Dr. Bowman urged publicity as one of the predominating influences on the whole problem of standardization. He thought it was fundamentally necessary that the meaning of the whole thing be stated specifically and from every angle to the public, and by the public he meant also state and county medical societies. He thought the public ought to be informed as to what standardization really meant and with regard to the necessity for it; that newspapers and lay magazines of every sort should be interested; and that they should be asked to take up the question and help along with it. There still seems to be a need for this publicity. The article by Wm. G. Shepherd in *Harpers' Magazine* several years ago attracted many laymen to this program. Newspaper articles, and other modern methods of publicity, should be resorted to, for, when public opinion is aroused, the unethical hospital will disappear. The doctor from the day he enters school is trained to shun publicity, and rightly so. This feeling is also carried into the hospital. It seems, then, that the time has come when those agencies outside the medical profession, which have spent so much money and exercised such tremendous influence in matters for the public good, should take up this movement which has to do with the life of so many innocent people. If the great organizations which have as their motto "service" understood, they could and would contribute much to this program of education. The medical associations, the church, farm papers, the movie, and all agencies could contribute. Through the American Hospital Association, National Hospital Day could be made "standardization day," and reach millions. The public must be educated in the modern way. Surely, such a movement is worthy of such consideration.

Therefore, in order to help the patients in smaller hospitals, I would suggest an intensive campaign of publicity. Through the sectional meetings of the College much has been done along this line. However, as these meetings reach a state only once in two or three years, and then in the larger cities only, they do not reach the class which patronizes the small hospitals.

Another phase of this educational program must touch the medical profession which controls most hospitals, and the nurses who exert so much influence in these smaller hospitals. This is to be carried on by the College through the various medical and nursing associations. It is well known by those who have accepted this standard that it pays from a financial point of view, the public favoring a standardized institution. This will appeal to hospital boards which could be reached best through the American Hospital Association, or the advisors of these boards in the profession. It is doubtful if a hospital will meet the standard, if influential members of the staff do not favor such a program.

Of course, it is unnecessary to state that the Fellows of the College must lead in such a campaign. Each Fellow has taken a pledge against commercial practices and, if he operates a hospital, he is morally bound to operate a standardized hospital, complying with the regulations of the College,—the other doctors and hospital people look to him and have a right to do so.

What can the American College of Surgeons do for smaller hospitals?

(1) Define the word "hospital." Oh! the crimes committed under that name! Make it mean "protection," so the innocent patients' confidence will not be violated. Help those approved in their battle against the unworthy.

(2) Call upon all organizations working for the good of humanity to assist in creating a public opinion in favor of good hospitals and a contempt for the others.

(3) Through the Fellows of the College call upon all members of the profession and allied professions to aid in the fight.

(4) Insist that hospitals operated by Fellows of the College of Surgeons serve as models in the program.

This country is infected with a terrible disease. It is a sort of a skin disease—similar to impetigo. The College of Surgeons has made a diagnosis and has prescribed the treatment. The treatment is so simple that even the layman can aid in its application, and will, when he knows of its danger. It is spreading rapidly, and is now scattered throughout the land. The time has come for action, as some doctors are irritating it for selfish reasons. Let's call upon the people, through every possible source, to stamp it out, as you have malaria, typhoid, yellow fever, smallpox, etc., and

make our country as safe as possible for every citizen entering a hospital door. It is a worthy cause; it deserves help from all sources, and will receive it when understood. It is right and will prevail.

When the smoke is cleared away, our country will be covered with clean, well-staffed, scientific institutions with all activities focusing not only on their patients, but radiating sound health doctrine to the whole community.

THE FUTURE HOSPITAL AND STANDARDIZATION

NEWTON E. DAVIS, Chicago, Illinois
President, American Protestant Hospital Association; Corresponding Secretary, Board of Hospitals, Homes and Deaconess Work of the Methodist Episcopal Church

IT has been my privilege upon two former occasions to address this body of distinguished surgeons upon the subject of "Standardization from the Laymen's Standpoint," in which I emphasized that boards of trustees and governing boards of hospitals must be standardized; and "Standardization and Community Interest," in which I called attention to the fact that leaders in community programs are saying that the best is not too good for their community and are demanding the best of returns for the money which they have invested.

Today I desire to take the rôle of the prophet and look into the future to forecast, if possible, some of the elements which must inevitably enter into the hospital developments which will take place within the next generation or more. This may be a precarious procedure; but if so, it has always been the part of the prophet to see the vision of better things ahead; and believing the vision to be a flash of unrealized reality seek to make this vision concrete in form and expression around the objectives visualized.

The history of hospital development during two hundred years in Europe and America points out the fact that there has been little of definite or constructive plan for building or organizing until possibly the past 25 years. There was no program for standardized organization nor building plans and no definite objectives. Hospitals just grew. Vast sums of money from state, county, church, private, and other sources have been invested in building, equipment, and material. If samples of building and equipment were before us for review, it would represent a crazy quilt of unrelated material and purpose. Is it too much to say that large amounts of money have been misspent through the failure to correlate units in our hospital work? Buildings have not been planned as work shops for busy surgeons and physicians. Concrete, steel, and stone have been put in form without relation to the objectives desired. Architectural beauty has often surpassed plan or purpose. Hotels and apartments have resulted rather than units so related that each one was contributory to the efficiency of the next, saving money, time, and energy in an effort to conserve human life and contribute largely to the total well being of the community or nation.

Our responsibility in this field of endeavor is serious and far reaching. We are dealing with human life from both a constructive and experimental viewpoint and it is our duty to make every element of the total content produce the desired result.

We must, however, observe that, despite our neglect, there has been a philosophy underlying this development which has been as fundamental and real as the philosophy of history in politics and sociology. We have been long in discovering the objectives, but now that they are quite well defined, it will be our purpose to relate our prophetic vision to these fundamentals as we outline our program. The industrial, financial, and educational groups discovered their objectives many years ago and have developed technical and expert organizations and standards until there is little to be desired. Such is the law of progress. Construction has preceded program—and science has followed finance.

In treating the future hospital and standardization, let me predicate the following items:

(1) *Unification.*

Community interest, scientific skill, professional ethics, and organization spirit must become a related unit before the program can be objectified in plans, specifications, financial considerations, and concrete structure. There has been some of this in the past, but our chief difficulty has been that building and commercial interests ran far ahead of the other principal elements. This procedure is being rapidly revised. Wherever the un-almighty dollar has been the objective, everything else has been subjected to its ruling power. It is up to this and related groups to see that the past history shall not be rewritten.

(2) *Planning the Hospital.*

The future hospital must be the product of scientific and ethical planning—carefully prepared and shot through with a moral and spiritual content that makes our work helpful and sacred. If, as the Psalmist says: "You are the Sons of God," and as another in ancient times indicates: "these bodies are the temples of the most high spirit," then let us so plan that what we do in hospital organization will be in accordance with an ethical plan that will not bemean that ideal.

No groups of professional engineers have so clearly visualized this problem and done so much to lift the scientific and ethical phases of human life out of the slough of commercialized practice and barter, as this honorable body of surgeons and your brother organization, the American Medical Association. Your collective ethical practice has been the result of long years of individual vision on the part of such great souls as Dr. Murphy, our late deceased Dr. Ochsner, and kindred spirits, both dead and living, who saw the vision from afar and lived to put it into practice on a high and dignified plane. Such practice is compelling and uplifting. The future program of hospital organization and building must be upon this basis.

We are pleased to note the progress being made in this line when the Director General and others of your organization have been called to the help of communities and churches for consultation before brick or mortar appears in the distance. This is an omen of vital progress which all hospital leaders hail with delight.

(3) *Ethical Practice.*

I have indicated above that science and ethics must be one in purpose in future hospital development and organization. This has not been the case in the past. Science has far outrun her timid ethical sister. Scientific developments have quickly become enmeshed in commercialized practice, until it takes a keen and observing layman to discover where ethics come in at all. When people visit some highly organized commercial laboratories or hospitals for diagnosis and treatment, the first requisite is a well lined purse or a check book that represents a generous supply of liquid assets reposing in the bank, awaiting transfer to more favorable places of deposit, before science can get a "look in" at the suffering patient and do its helpful work. It is true that physicians and surgeons must protect their practice, but conscience must first exercise its helpful influence and give science an opportunity to do its work.

Present as well as future hospitals must recognize that ethical practice is the basis of all community respect, and all organizations must be tinctured with this vital specific. The hospital must protect its clientele against unethical practice and do it vigorously—or suffer public reproach. No condemnation should be more severe than that which is hurled against the professional money changer, who traffics in the ills of human life and barters his profession for a mess of dirty pottage that damns his soul and conscience, makes his practice a stench to offend the institution which he might have served, and degrades his clientele to the status of chattels, and human flesh sold at auction to the highest bidder. We are thankful to high heaven and inspired conscience that this group of high-minded American citizens are making it more difficult each day, for the surgical "high jacker," and the "medical bootlegger" to ply their dirty business within the precincts of either hospital or laboratory. Like the righteously indignant Nazarene who drove the money changers from the temple, wherein lay the sick and afflicted, and castigated these hypocritical spiritual fakers and soothsayers as robbers and thieves, so the College of Surgeons is driving out the thieves and robbers from the precincts of our institutions and making it more difficult for medical and cult fakers to ply their traffic in private and institutional practice.

(4) *Standardization.*

Hospital standardization is common honesty and scientific efficiency applied to the practice of medicine and surgery in hospitals and laboratories.

All future hospitals must be standardized irrespective of size or location. The organization must be set upon this basis before plans and specifications are considered, and every plan must be built around this principle. All plans for financial campaigns and memorials should be predicated upon this basis. American people are fast learning this fact and making it the basis for giving their hard earned cash for hospital purposes. Case records, charts, laboratory equipment, and all such paraphernalia must be the accepted things before the future hospital is promoted by any group, either private or public. Physicians and surgeons should be eliminated, if they do not desire to work on this basis, just as an inefficient teacher is debarred from teaching.

Medical colleges should train undergraduates how to do team work in hospitals and pledge men to high honor in the practice of standardization when elected to a place on a hospital staff or clinic. Primary education at this point will save much trouble further on in life. Standardization must include staff-clinic, nurses' training school, hos-

pital management, and laboratory equipment and technic, and correlate all of these units into one functioning body for the saving of human life.

All national bodies should adopt these standards and then lead public sentiment to their realization. Let us be frank and courageous in this matter as crusaders on the march to holy endeavor.

(5) *The Hospital as a Health Center.*

The future hospital must become a health center in a much larger way than it now is. When you analyze the present hospital situation, it is evident that fully one third of the hospitals are privately owned, while many others are not public in the sense that they are open or charitable hospitals. The future plans should relate the hospital in a definite way to all the health activities of the community, either city or rural, and make it the clearing house for all types of health groups, such as clinics for crippled children, child welfare programs, school health, and visiting nurse groups, etc. Where there are several hospitals, the work should be allocated to each in such a manner that every interest will be conserved and related to the total community program. Construction coöperation should mark all our efforts in modern hospitalization.

(6) *Hospital Planning and Spirit.*

In closing, let us deal with the work shop in which this service is to be carried forth.

The future hospital must be planned, so that each unit shall relate its service to those immediately adjacent. Laboratories should be located so that the minimum of time and effort shall be used in completing diagnosis and giving results to the physician or surgeon.

The building should be fireproof and so provided with elevators that the patients can be removed hastily in case of accidents, explosions, earthquakes, or catastrophes. Note the San Francisco and Santa Barbara quakes. No one can predict what may happen any day anywhere. The earth is not foolproof yet. All plans should embody the best thought of board, staff, training school, storehelper, and manager. A hospital is a hotel, a school, and medical educational center and work shop, where each department must be interrelated with the total task.

We need not here discuss form or material.

We must, however, discuss its spirit for, after all, the most correct plant may be an absolute failure without the proper personnel or spirit. In this regard the spirit of a trained personnel, just consideration of every department, high ideals and ethical principles must characterize every phase of its work. Finance is necessary but must be subordinated to service. Technic is essential but must be correlated with scientific conscience and ethical action. Advanced surgery and medical jurisprudence must be linked with wisdom in decision in diagnosis and treatment, so that mistakes may be obviated and life saved. The absolute ideal has not yet been reached, but we are on the way and making rapid progress. Manufactured products and equipment of the highest order are at our hands for use. The future hospital will be organized, promoted, standardized, and financed adequately to meet the needs of a world which is rapidly learning that the best way to live long is to seek the best of service when needed and go where every element is to be found to save life in the best and most economical manner.

THE APPLICATION OF THE AMERICAN COLLEGE OF SURGEONS' STANDARDS IN THE MODERN HOSPITAL

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THE American College of Surgeons, through its department of hospital standardization, has set up certain requirements which must be met by institutions wishing to be placed upon the list of approved American hospitals. Collectively speaking, these specifications have come to be known as the "minimum standard," and have served and are serving as a model for thousands of hospitals throughout this country and Canada.

Briefly, the minimum standard specifies:

First: That the physicians and surgeons privileged to practice in a hospital be organized as a definite group, or staff.

Second: That membership upon the staff be restricted to physicians and surgeons who are competent, who are worthy in character, and who do not in any sense whatever practice division of fees.

Third: That monthly staff meetings be held.

Fourth: That accurate and complete case records be kept.

Fifth: That there be adequate clinical laboratory facilities.

It is my purpose to speak on the application of these standards to the modern hospital and to bring to your attention a somewhat unusual method of hospital organization, yet one that has proved so highly successful that it was deemed worthy of presentation with the idea of recommending the plan wherever a similar problem may obtain.

Ten years ago this month, there was dedicated in the central Pennsylvania town of Danville a new hospital, created by an aged woman as a memorial to her husband. The hospital was the last word in institutions of its size, for the instructions of its founder had been to make it superior in every respect, instructions backed up by funds designed to carry out fully the desires of the far-sighted donor. On its completion it was regarded as the most modern in design and the most complete in appointments of the general hospitals of one-hundred-bed capacity in the country. Established in a small town of seven thousand inhabitants, in a rural section of central Pennsylvania, off the beaten track, yet surrounded by many neighboring hamlets, it was hoped that it would fill a definite need in providing modern hospital treatment for patients of a large contiguous rural territory, prevented by distance, lack of means, or both, from visiting the clinics of the great cities.

It had been concluded that a permanent, full-time, salaried staff was the only type of organization to operate the hospital. That in its every department the hospital should always be conducted according to the highest scientific and ethical traditions, was firmly resolved. It was to be a place only for honest endeavor on the part of men of the highest character, who would not only seek the truth, but who would not shrink from a strenuous and self-sacrificing life in their pursuit of it. The minimum standards of the American College of Surgeons were to be set up as a guide.

The Geisinger Memorial Hospital is a general hospital, the work being about equally divided between medical and surgical cases. There is a moderate amount of obstetrics. All the major departments of medicine are represented with full time chiefs in charge. The members of the staff, who live in or near the hospital, devote their entire attention to the work of the institution. No physician handles cases in the hospital who is not attached to the staff. The staff members are all compensated on a straight salary basis, all receipts from patients going into the hospital treasury. Fifty-four per cent of the patients are full pay cases, the remainder charity or part charity. The receipts from the pay cases, plus a certain amount accruing from the endowment, is sufficient to operate the institution without a deficit, although it neither receives nor seeks municipal or state aid of any sort whatever. The institution itself, its properties, endowment, etc., are held in trust by a banking house—a trust company—in whose hands, by an irrevocable deed of trust, the donor placed the institution several years before her death. The trust company, acting as trustee, appoints each year from its board of directors an advisory board of seven men, meeting quarterly, who direct the fiscal affairs of the plant—a compact, businesslike, and reliable arrangement, in every way thoroughly efficient.

The ideals of the American College of Surgeons have been carried out to the fullest, and the minimum requirements of the committee on hospital

standardization are always met and usually considerably exceeded.

We are told that the doctor is a poor business man, and it is quite true. He is not a poor business man in that he is the ready prey of the oil stock shark — for which he may be forgiven — but he is a poor business man in not being able to rise above professional hates and jealousies, in failing to steer clear of hospital politics, and in not having a proper perspective and sense of proportion. These characteristics, so usual of medical men in general, are among the factors retarding many of our hospitals. No one factor in recent years has done more to increase the efficiency of our modern hospitals than the system of hospital standardization evolved by the American College of Surgeons. But there is yet further work for the College. Let it see to it that hospital boards are composed of broadgaged business men, men accustomed to large affairs, men who realize that their function is advisory rather than executive, and, let the staff become a bit more generous and tolerant, looking only to the larger things, suppressing the trivial and petty.

A month ago the Geisinger Memorial Hospital completed the first decade of its existence. There have been many lessons learned from this ten years' experience. I am absolutely convinced of the soundness of the principle of group medicine, especially in the solution of the rural problem, not, however, as commonly practiced, where the organization is a loose-jointed affair lacking in leadership and often headed toward the rock of commercialism on which it usually splits and flounders. "Group medicine" as a phrase has had wide currency in the past few years, but, as usually applied, the phrase is meaningless; it might more appropriately be termed "commercial medicine." The fame of the Mayo Clinic has done more than any one thing to popularize the system of group practice, and the success and the ideals of the Mayo Clinic have stimulated hundreds to attempt its emulation, although frequently success is put before ideals.

It is obvious that, for the best work and greatest achievement, the most satisfactory plan is to have the group operating the diagnostic department also in charge of the hospital in which the treatment is carried out. Within the past few years many promising groups, organized with high hopes and purposes, have achieved marked success in their diagnostic plant and in the handling of their ambulatory patients, yet these groups have met such constant and harassing annoyances in the hospitals to which they have taken their patients that they have become thoroughly demoralized.

The growth of The Geisinger Memorial Hospital has far exceeded the expectations of the most hopeful of those who have been interested in its destiny. Established in a town of but seven thousand inhabitants, it became necessary within three years to add new buildings and now at the end of ten years a further and even more extensive building program is being planned.

Thus has the experiment of creating a center for the modern and scientific hospitalization of the sick of a large rural district by means of a fixed full time staffed institution proven remarkably successful. The outstanding factors contributing to this hospital's success have been, first, a definite need for such an institution in the territory it serves, a firm financial basis, an adequately equipped institution adequately staffed, an arrangement by which the affairs of the hospital are administered not by a self-perpetuating board of lay trustees, but by a trust company through a deed of trust, and finally, the unequivocal and complete application to the hospital of the standards of the American College of Surgeons.

I am convinced that the survey of our American hospitals by the College and the setting up of the minimum standard for those institutions which so badly needed its guidance, has done much toward increasing the efficiency of our institutions and raising the morale of their respective staffs. This influence for the general good of the modern hospital and, therefore, the patient himself has been incalculable. It is the most constructive piece of work the College has thus far attempted and one of the most far-reaching achievements of any organization in our present civilization.

ESSENTIALS FOR AN EFFICIENT FRACTURE SERVICE IN A HOSPITAL

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I WANT to present to you briefly, the essentials of a fracture service in a hospital, and I assume for the moment that there is no doubt as to the advisability of the establishment of such a service. The members of the Fracture Service at the Massachusetts General Hospital in Boston, Mass., have personally contributed to this paper. I assume also that the recommendations that I am about to make are applicable to a small hospital, as well as to a large hospital. I shall assume also that everything that I say may be taken exception to, and I know that there are other opinions about these various matters, but I believe that if we stand—as the previous addresses today have led us to believe that we do stand—on the basis of an improved diagnosis, an improved treatment, and better results, that there is little basis for discussion over these fundamental and basic matters.

A patient coming to a hospital with a fracture, enters either the Accident Ward or the Outpatient Department, or he goes directly into the hospital proper. In other words, there are at present three services: The Accident Service, the Outpatient Service, and the House Service, and I will add a fourth, the Social Service. Each one of the three first mentioned—the Accident, the House and the Outpatient Service—has certain things in common. There is the personnel, the physical equipment and there are the methods pursued in each of these services. I will enumerate what seems to me to be important in connection with each of these details. I will later state the position which the Social Service should hold in this connection.

First, the personnel. The staff of a Fracture Service should be very carefully chosen. There should be a chief of this staff. There will obviously be residents, nurses, and orderlies. Each of these may serve in each of these three services, or there may be, because of the size of the hospital, a staff for each.

Second, the physical equipment. There should be a splint room, a place where apparatus that is used is kept and stored, and where the supplies are kept up. There should be a ward truck, carrying supplies throughout the wards, that are easily accessible. I believe there should be a Carrel-Dakin truck.

The record should be kept upon the record sheet, as recommended by the College, together with a fracture card for each patient, so that the fracture card may follow the patient from the time he enters the Accident Ward or the Outpatient Department, until he goes into the house and is discharged through the Outpatient Department and is followed by the Social Service.

A complete X-ray equipment. This completes the physical equipment.

A staff with this physical equipment must follow certain methods. The responsibility for fracture cases should rest with the chief of the service, in consultation with his staff. The policy of treatment should be evolved by consultation, by conversations and meetings, and agreed upon for a certain period. The final responsibility for the result of individual fractures and for putting the man back on to his job should rest with the chief of the service.

Fractures should be looked upon as emergencies, just as much so as are acute diseases. An appendicitis is not ordinarily left to be watched. Sometimes it is, but that is the exception. A fracture of the leg, a fracture of the thigh, should be treated as an emergency, in the sense that some one of the staff is on duty day and night. A staff surgeon can be called day or night to the hospital to take care of the fresh fracture.

The initial treatment for this particular fracture is the most important treatment. Consequently, the policy adopted by the staff should recognize the importance of this because according to the initial treatment will be the result in many cases.

Fractures should be segregated, they should be put as nearly as possible into wards by themselves—men with men, women with women, children with children.

The staff as a whole will make visits regularly upon individual patients, will hold consultations with regard to treatment out of the presence of the patient; will feel free to criticize each other's opinions regarding treatment.

There may be special assignments of subjects pertinent to fractures given to the different members of the fracture staff, so that the men on the staff who are keenly interested may show their hand and may determine their continuance as members of the staff. There are interurban conferences in fractures which members of the staff may attend and thus become conversant with forms of treatment used by others.

So much then for the equipment, the personnel, the physical equipment, and the methods that may be followed.

I believe that the Fracture Service should be continuous; insofar as possible the surgeon rendering the initial treatment should continue in touch with the patient until he is returned to his job. That can be accomplished in the latter instance through the Social Service Department.

The residents, the nurses, and the orderlies should all be given some instruction in the treatment of fractures. They should know the part that they take in caring for fractures. Crile is said to have stated that the greatest contributing factor to the diminution of shock in fractures of the femur overseas, during the war, was the employment of the Thomas splint. That means immobilization, rest, traction, lack of irritation, lack of afferent impulses, less shock. The training of nurses and orderlies in the proper handling of patients is of great importance. Such instruction is a preventive of shock.

Moreover, regular instruction to residents and house officers will tend to keep up the policy of the Fracture Service and carry it along down to succeeding house officers, a continually shifting group.

With regard to the X-ray equipment, an X-ray should be possible day or night, so that one will not have to wait until the next morning to start treatment because of the lack of exact diagnosis. There should be a portable, an operating, and a fluoroscopic equipment. In a small hospital, how is this service to be solved? It is possible that a nurse may be trained as a technician and that there may be a consulting X-ray man. That consulting man may only have to come to the hospital occasionally. A film may be shipped to him for interpretation, and so a small hospital which can not afford a resident may be able to conduct a good X-ray service. The local doctor is not competent, ordinarily, to take X-rays, even of fractures; he is not competent, ordinarily, to interpret X-rays.

The initial treatment of a fracture is the most important treatment. House officers should not be given the responsibility of deciding on and of carrying out that treatment. A member of the staff should be present when that initial treatment is determined upon. I believe that the Accident Ward is the finest place to teach students the fundamental principles underlying the treatment of fractures.

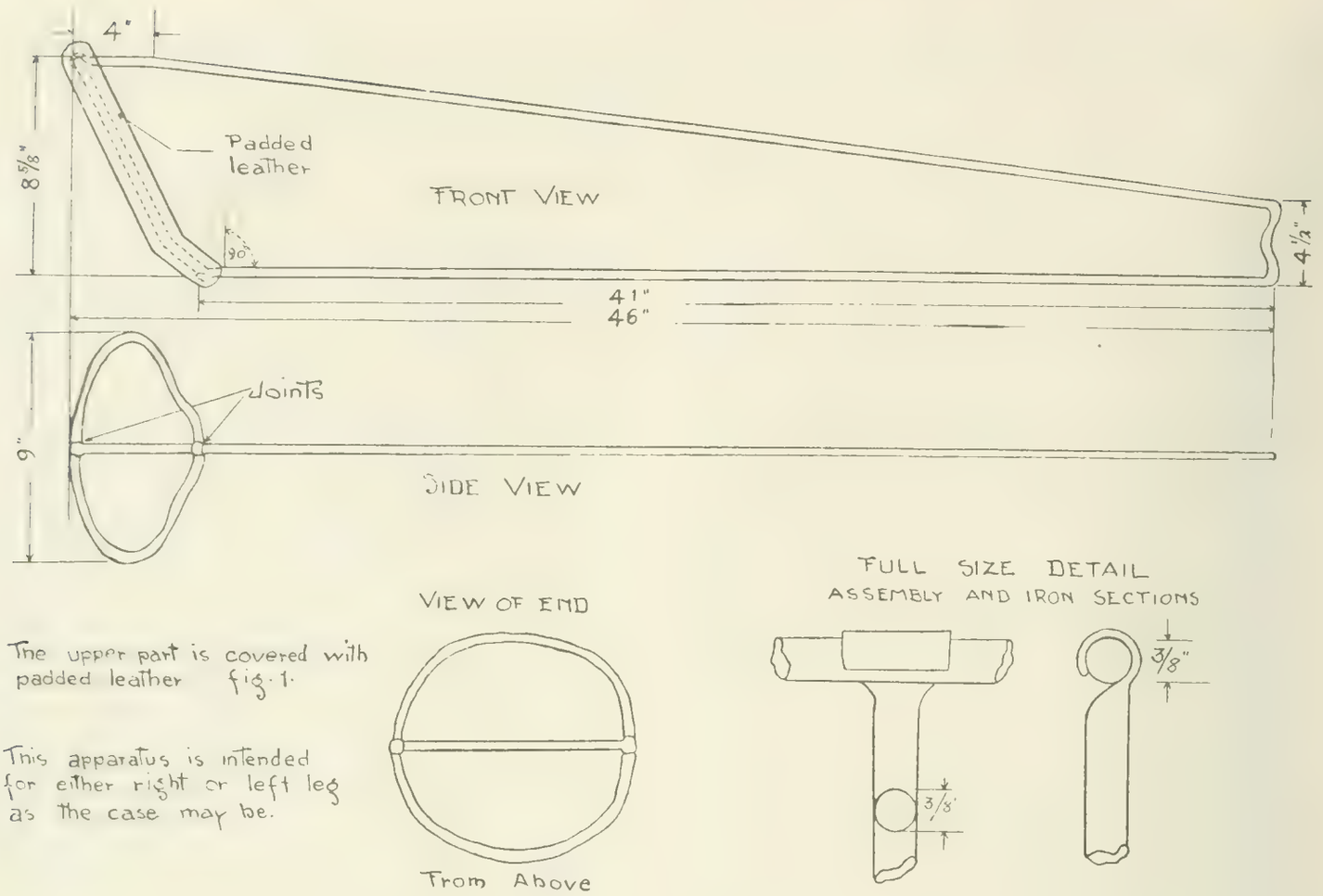
I believe a social service worker should be attached to a fracture service and detailed to the case when the fracture case enters the hospital. The social service worker should be in touch from start to finish. It should be the social service worker's function to instill into the staff and into the patient feelings of confidence in the future of the particular case, causing the surgeon himself to be interested in the family of that patient indirectly, in the getting of that man back on the job. Thus the whole fracture organization, from the surgeon to the social worker, will have one object and one aim. This spirit of co-operation in all concerned is absolutely lacking in the hospital today.

There are certain difficulties attending the conduct of such a fracture service. It is hard to secure the services of men who are really interested primarily in fractures. Young men may be interested in fractures with a secondary motive but what we need in our larger institutions, in our larger hospitals, are men who are primarily interested in traumatic surgery and, if we have such men, the service will move smoothly.

It is a very difficult thing to keep a splint room equipped; it is a very difficult thing to prevent people from appropriating apparatus out of a splint room and never putting it back. A splint room in a hospital should have a custodian who may be a nurse whose duty it is to see that nothing is taken out of the splint room that is not checked or signed for.

I believe eventually that every hospital of any size will have a paid record clerk to keep records. These records should be inspected by the chief of the Fracture Service regularly. No patient in the Fracture Service should be discharged from that service until the chief of the service has signed the record.

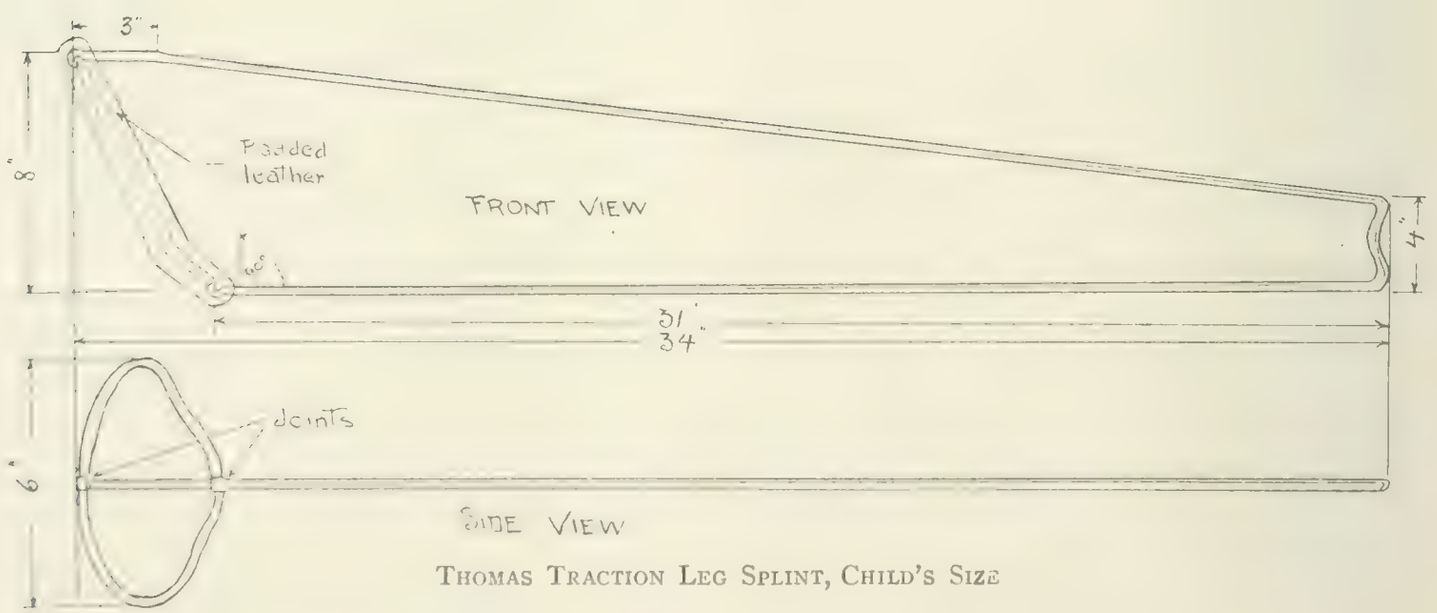
Is a Fracture Service necessary? There has been a discussion in the British Medical Association, within the last three or four months, on this particular point. Sir Robert Jones has advocated the establishment of Fracture Services in England. Certain men have opposed the establishment of a Fracture Service. An objection is that it tends to specialism. I believe that it does not. I believe that it tends away from specialism, for this reason: the Fracture Service in centrally located hospitals will train men along these particular and special lines, but at the same time, because of that special training in individual instances, will raise the standard among the general practitioners and the average practitioners of the country. There is no contention that there should be a specialty in fractures, but we believe that there should be a carefully organized, responsible service caring for this important group of cases.



The upper part is covered with padded leather fig. 1.

This apparatus is intended for either right or left leg as the case may be.

THOMAS TRACTION LEG SPLINT



THOMAS TRACTION LEG SPLINT, CHILD'S SIZE

Another objection is that medical students cannot be taught as well by a special man, as by a general surgeon. That is the old idea, and I believe the statement of it answers it. Better instruction, the recognition of the most salient and important facts concerning a subject can be presented, I think, by special men more adequately and carefully than by general men.

Throughout the country, since the war, there has been a great deal of discussion as to whether orthopedic surgeons should be entrusted with the care of fractures. I think that the answer to that query is that if the orthopedic surgeon has had a general training in surgery and has shown himself competent because of that general training and wishes to take care of fractures, why shouldn't he? There is no discussion about it; it is merely a question of competency. One of the past presidents of the American Orthopedic Association said, in his annual address, that the basis for all orthopedic surgeons should be a general surgical training. Wherever there is a general surgeon who wishes and can take care of fractures and demonstrates that he can, let him take care of them, provided the conditions are proper otherwise. I think that is the answer to the whole matter.

There is, in connection with the establishment of a Fracture Service, with the whole question of fracture treatment and the improving of fracture treatment, this important matter to be considered at some time: the matter of lay propaganda. The lay public do not understand what can be accomplished and what cannot be accomplished in the care of fractures. They expect too much at times and they are therefore critical. I believe that the advent of the social worker and the functioning of the social worker throughout the whole Fracture Service will dissipate a great deal of lay criticism, not only from the patient suffering from a fracture, but from friends of the patient. Adequate lay propaganda along fracture lines is still to be organized. Such propaganda has a great future.

The desire for improvement in fracture treatment is originating within the profession. There is a demand, because of the industrial situation, for improvement from outside, but the profession is awake to the fact that improvement should take place, and knows that it is taking place from within.

I believe that we should have established Fracture Services along the lines that I have indicated, caring for the injured man from the moment he receives his injury, and carrying him through until he is back on a remunerative job equal to his powers, or equal to what he was doing before. In such established organizations we will have throughout the country in large centers in accredited hospitals industrial surgical centers. These industrial surgical centers will help to solve many of the difficulties attributed to and associated with industrial surgical questions of the day. These industrial surgical centers will serve as clearing houses for the cases of traumatic surgery.

The injured laborer, the employer of labor, the insurance company, the family of the laborer, the surgeon will all be working together sympathetically, efficiently, ideally, for the restoration of the individual to his life work.

After extensive investigation and subsequent study of data received through carefully selected regional sub-committees in all parts of the United States and Canada, the General Committee on Fractures of the American College of Surgeons has submitted the following as a minimum in the treatment of fractures.

A. That all general hospitals be equipped to care for fractures; that the minimum equipment for the transportation and emergency treatment of fractures be the following or its equivalent:

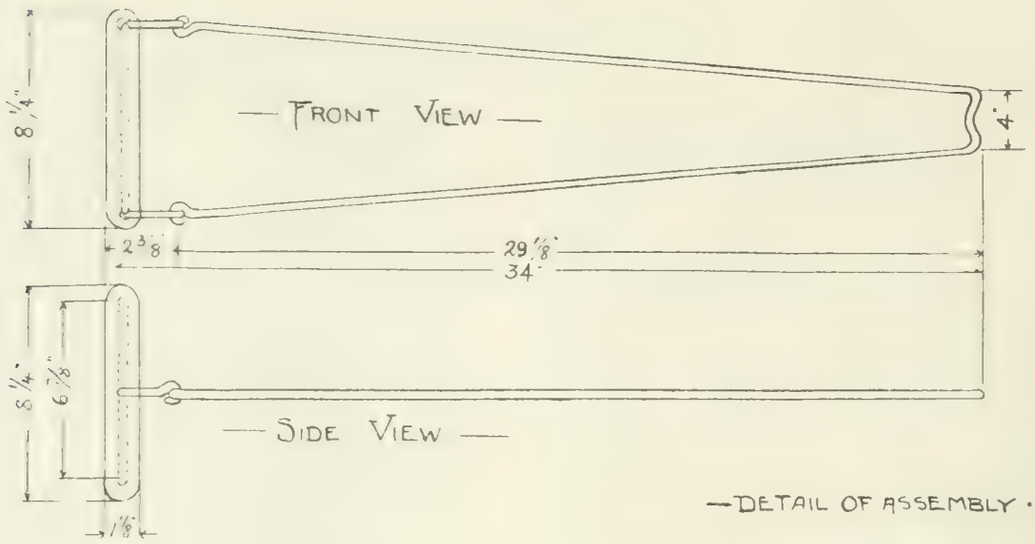
1. Thomas upper extremity splints
2. Thomas lower extremity splints with traction straps, sling and buckle straps
3. Hodgen splints
4. Coaptation splints, assorted sizes
5. Cabot wire splints
6. Straight pieces of wood (of assorted length, width and thickness) for splints
7. Plaster of Paris bandages
8. Some form of overhead frame for suspension
9. Suitable X-ray apparatus, including a portable machine, if practicable

B. That it is highly desirable that one individual surgeon be responsible for the supervision of the care of fractures in each hospital service.

C. That special record sheets be used for fracture cases.

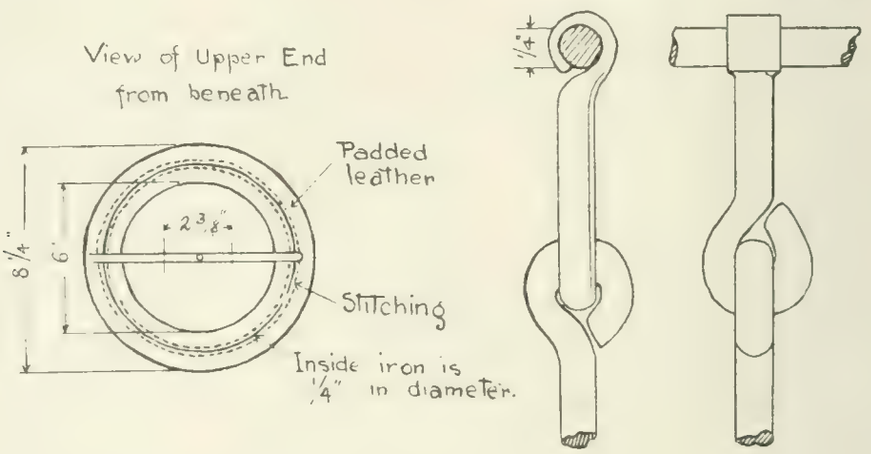
Splint Specifications

Thomas Leg Splint—Padding of ring: 3 layers of hard, gray wool felt ⅛ inch thick at the lower portion of the ring where it fits over the ischium, tapering smoothly to one thickness of felt at the top. Each layer should be sewn separately and as tightly as possible, the seam coming at the bottom of the under surface of the ring. This padding is then covered with 3-ounce case leather, cowhide, of good quality, with hard burnished

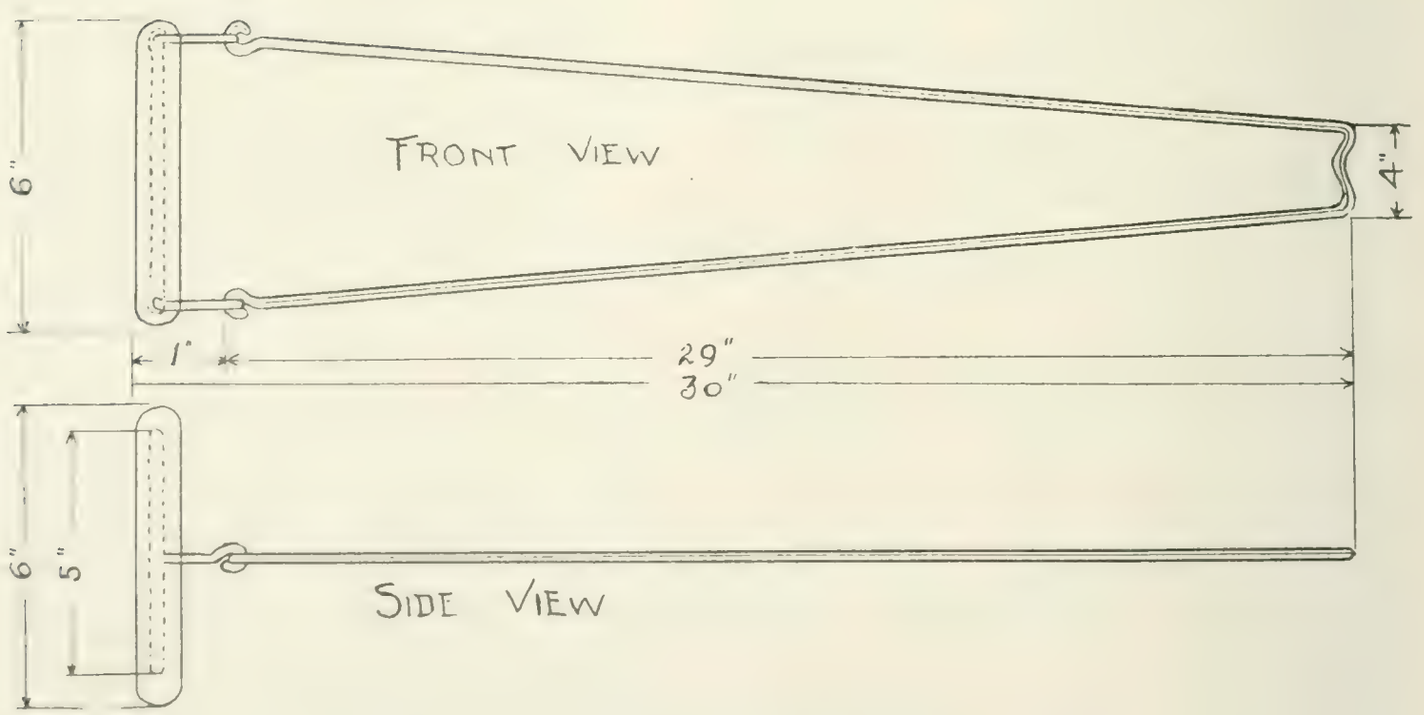


—DETAIL OF ASSEMBLY · FULL SIZE—

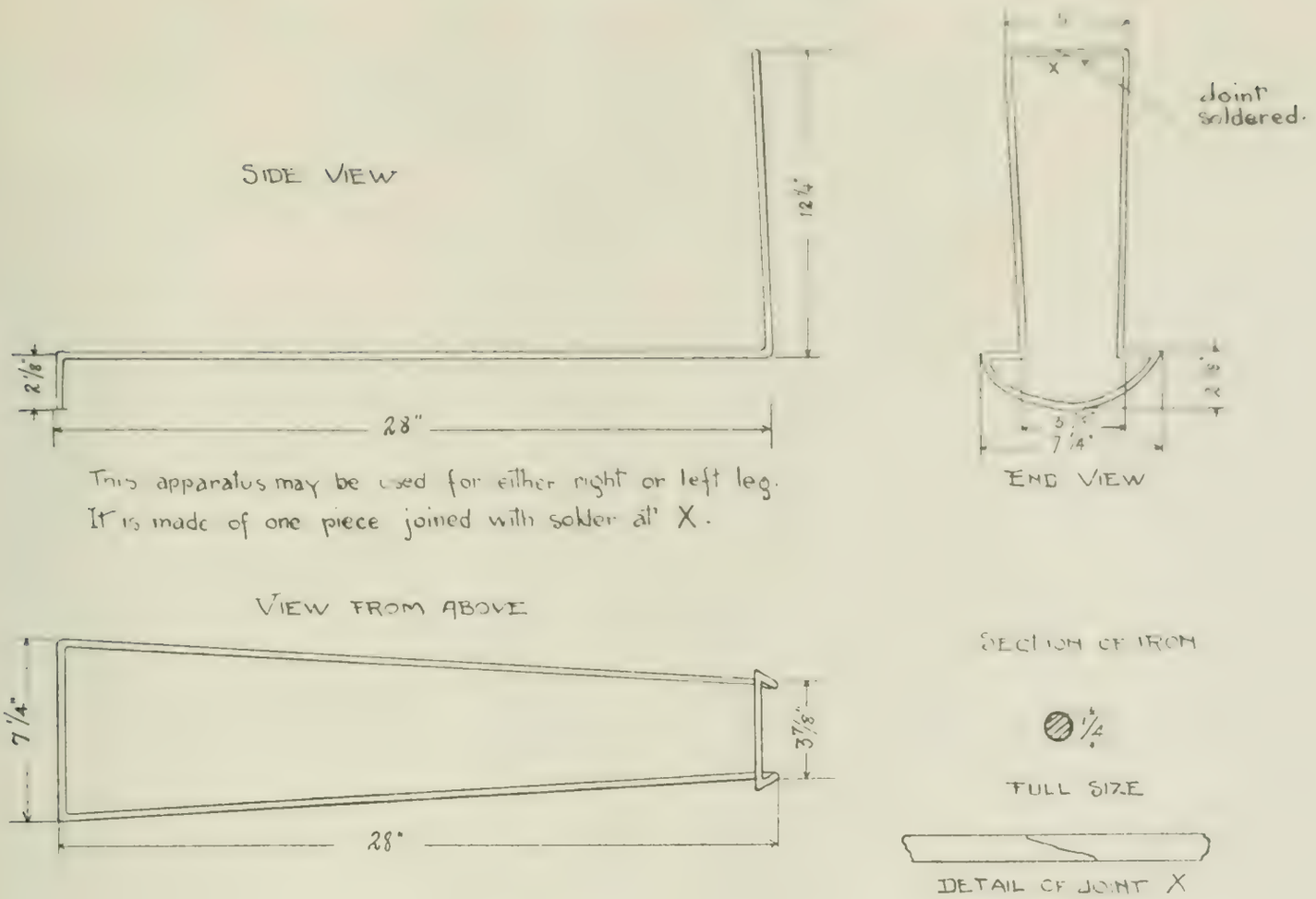
—This apparatus is made to receive either right or left arm.



MURRAY'S MODIFIED THOMAS TRACTION ARM SPLINT



MURRAY'S MODIFIED THOMAS TRACTION ARM SPLINT, CHILD'S SIZE



CABOT POSTERIOR WIRE LEG SPLINT

surface, and should be soaped with saddler's soap before use. Steel: common Bessemer steel painted or ordinary low carbon steel of the hardness of ordinary Bessemer steel, the latter being much less expensive. Dimensions of steel given in the blue-print of standard Thomas splint. Child's size splint should be slightly lighter steel, perhaps 5/16 or ¼.

Murray-Thomas Hinged Traction Arm Splint—Padding of ring: 2 layers of hard, gray wool felt ⅛ inch thick. Each layer sewn separately and tightly as possible throughout the circumference of the ring, the seam coming on the under surface of the ring. Padding covered with 3-ounce case leather, cowhide, with hard burnished surface. Saddler's soap should be applied to this ring before use.

END RESULTS AND FOLLOW-UP

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THE hospital standardization program of the American College of Surgeons represents a vital factor in the improvement of hospital procedure. It has fostered the accounting of hospital methods and results, and in fact has assumed very much the character of the efficiency agent in the commercial world. Among the outstanding features which this standardization program aims to accomplish is the keeping of better and more accurate histories, which, of course, implies also more complete records, which in turn implies a posthospital record. It stands to reason that a case history which ends with the discharge of the patient from the hospital does not represent a complete record of that particular patient. For, unless perchance, the same patient happens to be readmitted to the same hospital at a more or less remote period, there is no record of the posthospital progress of the case, so that the ultimate results of treatment in most cases remains unknown. While in some common and minor ailments this omission may be of no particular moment, there is a large class of medical and surgical cases, particularly the latter, in which the posthospital history is of the greatest importance for the improvement in therapeutics and technic. A complete hospital case record, therefore, implies a follow-up or end-result record of the cases discharged from its public and private wards.

With this desideratum in mind a number of hospitals throughout the country have added a systematic follow-up system to their other regular services. We believe that in Philadelphia the pioneer in this line of work is the Lankenau Hospital, which just five years ago established its follow-up system as an integral part of its activities. It was not without a certain degree of misgiving that the project was launched. The natural questions arose: Will the patients come back, and if so, will they come in sufficient numbers to warrant the expense of conducting the department? The hospital staff felt reasonably confident of an affirmative answer to these vital questions, and were, therefore, perfectly willing to accede to the suggestion of the Board of Trustees that the system be given a two years' trial. It needed not even this probationary period, however, to dispel any doubts the trustees may have had, and to justify the confidence of the staff. The response from our patients from the very first was far beyond our warmest expectations. Year by year the returns have kept a remarkably uniform percentage, in spite of the increase in the number of patients expected. The percentage of cases traced each year ranged from 86 to 93.3 per cent., the total for the entire five years being 91.6 per cent. In actual numbers this represents a total of 15,653 patients expected, 14,250 of whom were traced; of these 11,195, or 71.5 per cent., came to our clinics in person, and 3,055, or 19.6 per cent., were traced by means of letters, questionnaires, or social visits.

In these days of close cost-accounting it may be of interest to note that the expense of maintaining the department averages, in round numbers, about five thousand dollars a year, or an approximate per capita cost of one dollar and fifty-eight cents for each patient on the list. This includes the initial equipment and additional equipment in the way of filing cabinets added each year, stationery, postage, and salaries of the office force. The personnel of the department consists of a director, an assistant who also acts as social visitor, and one stenographer and general office clerk. Stationery forms a considerable item in the system as conducted at the Lankenau Hospital, inasmuch as all questionnaires and all letters requiring a reply are accompanied by stamped, self-addressed, (printed) return envelopes. It can readily be seen that this represents a large item in the expense account; as there is no charge for the follow-up service, the department has no cash account to its credit.

These figures, however, do not answer the question as to the relationship between the cost of the system and the benefits resulting from it. These benefits fall into three natural groups: the patient, the hospital, and the progress of the medical sciences, all of them intimately related one to the other. Medical progress depends on clinical data; these in turn depend on hospital records for which patients are essential.

Every hospital naturally is desirous of full activity throughout the year. It is only thus that

a minimum per capita cost can be effected. It stands to reason that the patient who feels that his discharge from the hospital does not put an end to the interest in his case, not only is apt to return to the same hospital should he require subsequent treatment, but also will recommend the hospital to his friends and family. So from this purely practical, in fact commercial, side the hospital derives a distinct advantage from the system.

Among the patients from whom posthospital observation is desirable there are none for whom it is of greater importance than the cancer cases. Very often, for various reasons these patients fail to keep up with the prescribed posthospital measures, particularly radiation after breast operations and in pelvic cases. The timely warning given by the follow-up clinic, and the consequent resumption of treatment have been of inestimable value in delaying, or possibly preventing, recurrences. In other instances, by being kept under regular observation, it has been possible to seize upon the most opportune moment for reoperation or for further hospital treatment, when indicated, much to the advantage of the patient.

Then there is the group of ptosis cases for whom follow-up observation is most essential. Routinely, treatment in these cases consists of rest in bed with the foot of the bed elevated, forced feeding, and the application of a properly fitted belt with fluoroscopic examination of the belt when applied. As the cases progress toward improvement, or otherwise, the belt may require readjustment, or in some instances a different type of belt may be necessary or some change in the general regime may be indicated, all of which would oftentimes be neglected by the patient much to her disadvantage (for these patients are nearly all women), but for the timely suggestions given in the follow-up clinic. In passing it may be said that the policy of the department is not in any way to interfere with the relation between the patients and the physicians referring them to the hospital. Except for the fluoroscopic examination, which is made on our initiative, any suggestions as to change in treatment are sent to the referring physician, the patient being advised to return to him for further observation.

We have thus far followed 70 such visceroptosis cases, from twelve to forty months. Of these nineteen, or 27 per cent. plus, were entirely relieved of symptoms, usually in from twelve to twenty-four months, a few cases requiring about another twelve months before they were considered suitable for dismissal from the follow-up service. Twelve cases, or 17 per cent., were greatly relieved. The nervous element plays a large rôle in this type, so that, although the patients in this group still complained of symptoms, they were not marked, and it was deemed proper to close five, or 41 per cent., as probably being as well as they ever will be. Adding them to the 19 cured cases would give 24 cases or 34 per cent. of cures. The remaining seven cases of this group, as well as twenty-one others, are still under observation.

Ten cases were closed not entirely relieved, although three were much improved, and six showed at least 50 per cent. improvement. One patient failed to get any relief and, as she was entirely lacking in coöperation, it was deemed useless to keep her on the list. Lack of coöperation, by the way, is very unusual, the patients usually being eager to return and most appreciative of the service.

The value of the follow-up system, furthermore, is well demonstrated in a study of the end results of appendectomy for chronic appendicitis. It has been the policy of the surgical staff of the hospital, in the cases having marked symptoms of chronic trouble with the appendix, to remove that organ, even though there may be some other condition present, such as a ptosis, which might account for some of the symptoms. In an analysis of the follow-up reports obtained from 484 patients, there were 348 who gave evidence of perfect results, and 102 who were markedly improved but not sufficiently free from all symptoms to give them a perfect rating on their first postoperative examination; 26 reported some improvement, and 8 claimed that there was no amelioration of the preoperative symptoms.

The attempt was made to find the cause of the slight improvement and the lack of improvement in these cases. When this was discovered, suggestions were made to the patient's physician concerning the condition, or, if the patient had no personal doctor, corrective measures were instituted by the hospital. As a result, subsequent reports placed some forty more of these patients in the "perfect-result" class.

There is a large class of patients, particularly of the ward class, who return to the follow-up clinic entirely relieved of the condition for which they were treated, but who have in the meanwhile developed symptoms of an incipient or even an already established disorder. For various reasons, usually of economy, these patients have failed to seek advice and might have continued to defer doing so were it not for the suggestion given by the follow-up service. Such of this class as may require medical advice are referred to the family physician, and should hospitalization be needed

they will naturally return to this hospital. The mutual advantage to the hospital and patient thus is clear. This particular aspect of the system, furthermore, is in entire conformity with modern ideas of preventive medicine, and thus represents a decided contribution to public health work.

Viewed from the aspect of improved histories there is every reason why case histories should show greater accuracy and fullness. In many hospitals a large share of history-taking falls upon the interne. If, as in the Lankenau Hospital, the opportunity of three months' observation service in the follow-up clinic is given him before entering his medical and surgical service, he has gained a much better idea than he would otherwise have of the essential points in the history of various types of cases. This knowledge should certainly be reflected in his histories and in his bedside notes. Like the monthly meetings of the hospital staff, as required by the hospital standardization program, the follow-up system acts as a valuable factor in the improvement and modification of methods by preventing the development of a blind routine and encouraging and promoting effort in every direction. The greatest advantage, however, of a good follow-up system is one that may be more apparent as time progresses, for it is only after a certain amount of its clinical data has been collected that these can be properly collated and evaluated. It is a well-recognized fact that many problems in internal medicine and surgical technic can be solved only by the statistical study of a large mass of material.

As a step in this direction several studies are being conducted in conjunction with the research laboratory and with the department of roentgenology of the Lankenau Hospital.

In the first line stand the observations that are being made on the postoperative course of gastrojejunostomy in the treatment of gastric and duodenal ulcer, already reported elsewhere. Each one of this class of patient who comes to the follow-up clinic is subjected to fluoroscopic examination after a barium meal. While hitherto it has been a generally accepted fact that when a gastroenterostomy is made and when the pylorus is not obstructed, the food will pass through the normal pyloric opening, our observations show that this is by no means always so, for we have found that oftentimes, even when the operation had left the pylorus unobstructed, the food passes out of the stomach through the new stoma. These studies have also demonstrated an interesting point with regard to the evident spontaneous closure of a gastroenterostomy in the presence of a patulous pylorus. They show that in the same patient at one examination the gastroenterostomy had apparently closed, while at a subsequent one it was again open. This fact emphasizes the necessity of repeated examination after gastroenterostomy, in order definitely to determine the status of gastric function. These studies are at the present time being supplemented by further observations in order, if possible, to establish the import of some of the facts thus obtained, that is to say, the rôle of patent pylorus as one of the causes of recurrence of ulcer symptoms after gastroenterostomy. These tests have been made on too small a number as yet to be of value.

It may be of some interest to call attention to the value of a follow-up service as an aid in elucidating some of the points which are being discussed at this time with regard to the rationale of operation in certain kinds of cases.

Partial gastrectomy, for example, is at present being largely advocated for the treatment not only of gastric ulcer, but of duodenal ulcer as well, on the theory that the acid-producing area of the stomach having been removed, the patient will be relieved of hyperacidity and the symptoms that follow in its wake. But according to some observers, there is as yet no definite proof at hand that the cardiac end of the stomach is devoid of an acid-producing function, and even assuming that the antrum plays the most important rôle in producing acid, there is no evidence that when the antrum is removed there will be no compensatory action on the part of the glands in the cardiac end of the stomach. Until this question is satisfactorily solved the question of radical versus conservative surgery for duodenal ulcer will remain a debatable one.

A favorite aphorism of the honored surgeon-in-chief of the Lankenau Hospital is: "The Lord preserve us from the man who has had a case." So we are well aware that one case proves nothing. Our reason for citing the following instance is merely to indicate some of the lines along which follow-up work may be of value, particularly, as the observations made are based, not on hypothesis nor on theory nor even on animal experiment, but upon the living human subject.

The patient gave a history of about ten years of ulcer symptoms for which he had in vain sought relief at the hands of various doctors.

Before operation a fractional test meal showed marked hyperacidity persisting at all readings, reaching its highest point at the last reading both for the free and the total acidity: free HCL being 79 and total 88.

Operation revealed an ulcer on the first part of the duodenum, which had almost perforated. A

subtotal gastrectomy, by the Balfour method, was done. The patient made a good recovery.

He returned to the follow-up clinic three months after operation in good general condition, having gained 22 pounds in weight. Appetite was good and digestion markedly improved, his only complaint being considerable belching and expulsion of gas, more noticeable after liquid than after solid food. He was again given a test meal at this time, the result showing marked hypoacidity, the free hydrochloric acid being zero at each reading and the total reaching 22 at the sixth reading. This patient was referred back to his physician for correction of the low acidity. The further progress of this and similar cases will no doubt be of value in the discussion of this point in gastro-enterology.

In attempting the correlation of follow-up notes with clinical data, we are at this time also making a study of the expectancy of life after operation for cancer of the breast.

In breast cases we are often astounded by the fact that patients with large breast tumors of long-standing and associated with axillary metastasis, who by all known rules can be expected to run only a short postoperative life, remain well for a long period, and perhaps fall into the five-year-cured class. Others, on the other hand, whose tumors are small and show no apparent clinical axillary enlargement, succumb very quickly after operation.

Many operations have been devised to improve the prognosis of carcinoma, and discussion is active as to the relative merits of preoperative and postoperative radiation, X ray or radium. Various observers have endeavored to base prognosis upon the duration of the growth, its position, and the presence or absence of axillary involvement. These, no doubt, have a distinct bearing on the individual case, but the studies in process at present in our research laboratory, it seems, may prove that the basic factor in prognosis in cancer of the breast is the type of the tumor cells, rather than the duration of the disease or the evident metastasis. It is hoped that this investigation when completed will prove of practical benefit in determining not only the relative merits of surgery versus radiation, but also, in determining the suitable procedure for a given type of case, and thus prove a contribution of some value to this subject.

The study has been interrupted because of the departure of Dr. Reimann, the director of our research laboratory, on a tour of investigation of some of the prominent European institutes of pathology. It is a source of great regret that he was unable to prepare more details even for this preliminary report.

We hope, in this brief discussion, to have indicated some of the lines along which systematic follow-up work can serve the hospital, the public, and the medical sciences. If happily our efforts will act as a stimulus to other hospitals to establish the system, we shall feel not only gratified, but shall consider that we have added one more aim to the various purposes of the follow-up system at the Lankenau Hospital.

POSTMORTEMS IN HOSPITALS

Findings in the State of Pennsylvania Survey

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THE daily experiences in securing permission for an autopsy seem to be fraught with certain obstacles. The question arose as to what could be done in Pennsylvania to reduce the difficulties to a minimum. After mature deliberation it was considered that the greatest obstacle to overcome was the undertaker. At the annual session of the Medical Society of the State of Pennsylvania held in October, 1923, a committee to confer with morticians was appointed, of which committee I was made chairman. The committee submitted its report at the annual session of the State Society, October 1924. In approaching the survey many other factors loomed in view, and it was deemed advisable to extend the field, and a more comprehensive study was planned and executed.

There is a wealth of suggestion in the statement "every death is a clinical failure which merits investigation by means of an autopsy." The postmortem examination performed with a view to securing direct information concerning the causes of death should be the final step of hospital service in those institutions where the patient has had the full advantage of hospital care.

The survey made consisted in sending a questionnaire accompanied by an explanatory letter to 250 institutions in the State. It would appear that hospital administration has been notoriously weak in the effort to solve the problems of hospital failures in treatment. There is ample evidence to demonstrate that the reason for failure to secure consent for autopsy lies rather in the attitude of the hospital administrators than in the general unwillingness of relatives.

The responsibility for securing autopsies rests upon hospitals, and their failure to secure them cannot be excused merely on the statement that relatives are opposed to such procedures. A conscientious effort to convince laymen of their true responsibilities involves tact and judgment, gentleness and persuasiveness, firmness, and persistency. Above all, however, it requires a sincere belief in the necessity for such work with coöperative efforts on the part of the entire hospital staff to secure the ultimate check upon its own failures.

The questionnaire asked for the following information:

1. What per cent of autopsies is obtained by your institution?
2. What methods do you find best to secure permission for an autopsy from the following: (a) Roman Catholic, (b) Protestant, (c) Hebrew, (d) Negro, and (e) any other?
3. What is the experience of your institution with the objections offered by undertakers in influencing the relatives against giving consent? And what have you found to be the best methods to overcome the untoward effect of the undertaker?

The percentage of autopsies varied, but the general average was low. In thirty-two institutions no autopsies were done, either because no effort was made to obtain permission, or the institution was not equipped to do postmortem work. It is intensely interesting to note the number of institutions thus recorded that are on the list of approved hospitals. It would seem that the main effort should be to secure the confidence of the relatives, and to assure them that they will be advised of the findings. It would be expedient to stress the point that the autopsy is being done so that the relatives themselves may know definitely the cause of death, rather than from the point of view of the medical profession. Pursuant to this thought, the suggestion is made that the autopsy permission slip really should be in the form of a request from the relatives, rather than permission given.

The greatest amount of tact must be observed. Each case is a case unto itself; carefully study the family and govern accordingly the method of approach. When the relatives definitely are found to be opposed, the issue should not be forced; but the relatives should be reassured that the matter is entirely up to them, that no one desires to examine the body, if it is against their wishes.

It is recommended that the words "autopsy" and "postmortem" be not used; instead, that permission be asked to make an examination. Assure the family that the examination will be done as carefully as an operation, that there will be no mutilation of the body, and that it will not affect the appearance of the body when prepared for burial.

The following reasons used to obtain permission are culled from the questionnaires: General

scientific and humanitarian interest; for the proper issuing of death certificates; in order to answer properly the questions on insurance papers; further, the collection of insurance often demands a postmortem examination; the examination may reveal conditions that may be helpful in saving lives of others, possibly of the deceased's relatives; when liability insurance is involved, the findings may turn the tide in favor of the estate of the deceased; there may be determined the presence of familial and inherited diseases, and the records of the examination will be available to the family; to afford the family knowledge of the exact cause of death; in certain instances an obligation of the family to the hospital for care of the patient; the family always should be advised there will be no charge for the examination. The routine procedure of opening the chest, abdomen, and the skull in all cases often militates against consent. The skull should be opened only when there is distinct indication. Frequently permission may be obtained when the family is assured that only a regional examination will be made; for instance, if an operation has been done on the chest, abdomen or head, that an examination will be made through the incision only; or, in medical cases, if the pathology seems to have been localized in the head, chest or abdomen, that the seat of pathology only will be examined.

In regard to securing permission where race and religion are factors the following is submitted: The question of religion should not be mentioned, unless the relatives directly refer to it, or the person interviewing the relatives anticipates the issue from their attitude. An intelligent Catholic will not offer religious objections; those who are not intelligent are very apt to state that the Church does not permit mutilation of the dead. These should be properly advised of their error. The priest very often will be of service.

The Hebrew is the most difficult of all to handle, on account of: (1) religious views; (2) the relatives are so hysterical they cannot be approached, or only with the greatest difficulty; and (3) the limited time for burial. Many institutions state it is absolutely impossible to secure an autopsy on a Hebrew. This will prove to be an increasingly serious situation because in many communities the Hebrew constitutes the largest percentage of hospital admissions, hence the greatest percentage of deaths. A request for an opinion on the religious objections offered by Hebrews was sent to Rabbi B. L. Levinthal of Philadelphia, who replied as follows: (It would be well to quote this opinion when Hebrews offer religious objections): "In response to your inquiry as to the circumstances in which a postmortem operation is permissible under the Jewish Rabbinic Law, I desire to state that unquestionably the dissection of a corpse is not prohibited where a reputable physician believes that it is essential for the advancement of medical science. Where a postmortem examination may result in the discovery of the origin or cause of some serious disease, it is my firm conviction that thus to serve humanity is sanctifying, rather than desecrating, the dead."

On account of the influx, the Negro, too, is presenting an increasing problem, and many institutions either do not secure permission, or do so only with great difficulty. The failure is due to superstition and ignorance on the part of the relatives; and frequently the body is claimed by a former employer, a lodge or society, and the persons so acting do not feel at liberty to give consent.

The so-called "foreign element" may be reached through their spiritual advisers. This applies to all creeds and races. It is of interest to note that many of these people come from countries where autopsies are done as a matter of routine in all institutions; it has been an accepted situation to them, previous to admission to the institution, yet when they come to America, they seem to object so bitterly.

Religion and superstition very frequently can be overcome by tact.

In securing permission for an examination, the main issue is that everyone connected with the institution must be keyed to the proper amount of interest. The attending physician, the interne, the nurse, the directress of nurses, the superintendent and others, may, each or all, have a direct influence in the respective case. It would seem preferable to secure permission prior to the death.

All institutions should have a blank form to be used when permission is secured. The following is a suggestion, which includes certain details that have been discussed, and others that will be referred to in the remaining portion of this report:

> I..... bearing the relation of..... ..... to....., a deceased patient, do hereby request the authorities of this hospital to perform an examination of the body of said patient, with the object of ascertaining the correct cause of death. The body is to be released to the undertaker Mr....., Address..... who is authorized to call for the same
>
> a.m.
> .....p.m.....192..
>
> Witness: Signed:
> ....

The form affords: (1) written request; (2) it is secured previous to the advent of the undertaker on the scene, who so frequently interferes; (3) it distinctly states what undertaker is to take charge of the remains, thus avoiding embarrassing confusions. If a change is made in the undertaker, a notation should be made of the change, and, if available, the person signing the request should sign the notation; (4) the undertaker always should be notified immediately after the death, when he is to call for the body. His time is valuable to him, and he should not be required to make unnecessary trips to the institution, nor be required to wait around indefinitely until the examination is completed; (5) further, the name of the attaché of the hospital telephoning the call to the undertaker should be signed to the request form to fix responsibility.

The attending physician always should attempt to obtain permission for the postmortem; when a "private patient" is involved, the attending physician surely should be the first to approach the relatives. The chief resident or the interne may be more effectual. In many instances the permission is not obtained previous to death, in fact no reference to an autopsy has been made previous to death. Under these circumstances the problem of securing the permission rests entirely with the interne, with or without the aid of the chief or chief resident. Too frequently the interne is responsible for the failure to obtain permission. Undoubtedly, most of the deaths occur at night, in the wee small hours of the morning, at a time when the interne dislikes to get out of bed. When called, he administers restoratives to the dying patient, and when death occurs, as a rule, he attends as quickly as possible to making the required entries on the history chart, and hastens to bed. Frequently the relatives arrive late, the interne is already in bed, his moral obligations having been fulfilled, and he has no more interest in the matter. Unfortunately, there are too many instances where the interne asks for permission, hoping that it will not be obtained, as he will be required to do the autopsy. It is unnecessary to say that under such circumstances permission is not secured. An active, wide awake interne, imbued with the proper interest, who is serving well the institution and who is anxious to see the end results of his labor, should be allowed to use the telephone, telegraph, or even go to the home of the family, if necessary, to secure permission.

The percentage of postmortems can be increased if the internes are properly instructed not only how to proceed to secure permission, but also as to the value of the postmortems to the internes and the institution. The interne should be made to realize that the postmortem rate is somewhat an evidence of his interest in medicine, and influences his rating so far as interne efficiency is concerned. In order to foster the spirit of competition in securing postmortems, some institutions post on the bulletin board each month a list containing a tabulated report of the names of the chiefs, the number of deaths on their services for the preceding month, the number of autopsies secured, and the percentage. A similar list is posted, giving the same data for each interne. In this manner it is definitely shown each month which chiefs and internes are not making good on securing postmortems. The list may show further: (1) the total number of deaths for the preceding month; (2) total number of deaths for the month before the preceding month; (3) the percentage of autopsies for each of these two months; (4) the increase or decrease in the percentage for the preceding month, and (5) a record of those securing permission which was afterward recalled.

The chiefs may be advised by the superintendent or the chief resident each month of their postmortem rating on a blank form.

One hospital reported that it paid the internes three dollars for each postmortem permission secured.

Several futile attempts had been made to secure the coöperation of the undertakers previous to the survey. In 1923 in a conference with the President of the Funeral Directors' Association of Pennsylvania, the entire situation was placed before him, and he replied, "the situation is acute and both the physician and the undertaker must be properly instructed." He pledged his support, and formal plans of procedure were adopted, which terminated most satisfactorily.

The Funeral Directors' Association of the State of Pennsylvania consists of fifteen component associations. These local associations hold their annual meetings in May, which are attended by the officers of their State Association. Arrangements were completed whereby each one of these local associations would be addressed by a medical speaker. In order to secure the latter, the president of the respective county medical society, where the funeral directors' local association held its meeting, was requested to appoint the medical speaker for the occasion. In arranging for the medical speakers a form letter was sent to the president of the respective county medical societies, containing full instructions, and certain details, with the request that the letter sent to the president be given to the speaker, and the name and address of the latter sent to the Committee.

When the name of the speaker was received, a follow-up letter was sent to him, with further material for his address, and a request that a report of the meeting be sent to the Committee, in order that all points at issue raised by the undertakers in discussion could be assembled for the final address to be made by a medical speaker at the annual session of the Funeral Directors' Association of the State, held in June of that year.

Each local association appointed a committee to confer with the medical profession of the community on the various phases of the postmortem problem.

The undertakers may be classified as coöperating, helpful, luke warm or absolutely rebellious.

At this juncture it would be well to state that the medical profession is equally guilty with the undertakers for the situation as it exists. It is absolutely foolish for the physician to take a "holier than thou" attitude. Too frequently the physician has shown a total disregard for the undertaker in every respect. We must put our house in order and come with clean hands if the coöperation of the undertaker is to be secured.

The undertaker is resentful toward the medical profession, and justly so, for a total disregard of his interests in the past. The reasons for and the correction of the same may be summarized as follows:

(1) In many institutions there is a system of graft, from the superintendent's office down, by which a certain undertaker is favored. The undertakers desire that this system be abolished. They are willing to do their part by dropping from membership in their associations undertakers who are following this pernicious practice, and in return request that the institutions discharge employees who are guilty of this offense. Certain institutions, as a matter of routine, are in the habit of referring all families to one specified undertaker, the question of graft not being at all involved. The undertakers request that this procedure be discontinued. In the smaller communities a list of reputable qualified undertakers could be used, and the undertakers recommended in turn. When the undertaker knows that his interests are being served by an institution, he will coöperate in every way with the authorities.

(2) When the undertaker receives notice to call for a body, he does so immediately, as a matter of self-protection. Numerous incidents may be cited where a change has been made in the undertaker, due to interference on the part of institution employees, the undertaker first engaged losing out. Therefore, when the call is received he hastens to the institution to remove the body, because once it is in his possession, the possibility of a change being made is remote. The undertakers recommend that a record be kept by the institution of the name of the person telephoning to the undertaker to call for the body, in order to fix the responsibility for making the call.

(3) The body too often is not given proper attention after death. The duties of an undertaker are more numerous than any physician can realize. One of his functions in assuming charge of a body is to embalm it properly, and have that body make the best possible appearance on the day of the funeral. Therefore, it is to his interest that the proper care and attention be given the body from the time death occurs until it is delivered to him. This care should be observed not only in institutional work, but also in the home. Needless to say, the responsibility rests upon the medical profession to see that everyone in caring for the body is properly instructed. Discontinue tying up the lower jaw, because at times a mark is made on the face that cannot be obliterated by embalming. Instead, use a roller bandage of sufficient length, or other support, one end of which rests on the upper part of the sternum, the other end under the chin. The end of the support under the chin should be padded in order not to bruise the tissues. The arms should be folded across the body and tied. The head and shoulders should be elevated sufficiently to allow drainage of the blood from the head and neck. Institutions should be provided with proper refrigerating equipment in order that the body may be cared for until delivered to the undertaker. In warm weather, and when the death occurs at night, and the body is being held until the next day for the autopsy, the preservation of the body is very important. An undertaker cannot be expected to embalm a partially decomposed body, and have it presentable for a public funeral.

(4) Death certificates should be issued immediately, in order that, when the undertaker calls at the institution for the body, the certificate will be ready, and he will not be kept waiting. When the death occurs at home, the certificate should be issued promptly in order that, when the undertaker calls at the physician's office for it, he will not be kept waiting, or will not be required to make unnecessary trips. One undertaker reports having made five visits in one day to a physician's office before securing the certificate.

The undertaker too frequently urges the family not to give permission, or if permission has been given, to withdraw it. His reasons for doing so are: it is impossible properly to embalm a body on which a postmortem has been performed; it in-

creases the cost of his services; the body will not be turned over to him in "decent condition"; and, it will not be possible to make the remains presentable. If the proper technic is observed in making the postmortem, no difficulty should be experienced in embalming. The medical profession is to blame in many instances for carelessness in technic, and we must correct our indifference if we are to secure the coöperation of the undertaker. If a proper technic is followed, there should be no excuse for the undertaker objecting to an autopsy or making an additional charge for his services. The better class of undertakers will not do so. When a family finds that the undertaker has charged ten to twenty-five dollars extra on account of the postmortem, it will have its baneful influence. This is a factor which we must overcome, and when knowledge of this is obtained, the superintendent should discuss the matter with the undertaker. Undertakers who do not coöperate with the institutions and with the physician in his practice cannot expect courtesies in return.

The following points to be observed in performing autopsies have been adopted by the Philadelphia Hospital Association and the Embalmers Association of Pennsylvania, and therefore are recommended as a standard technic to be observed in the making of all autopsies in Pennsylvania:

1. Routine incision should consist of a midline incision extending from below the suprasternal notch to the symphysis pubis, except where there are special indications for other procedures, in which case every precaution should be taken to prevent disfigurement.

2. The aorta should be examined in situ, if possible, but if removed, the left carotid and innominate arteries should be ligated, leaving eight inches of ligature attached. In general, the circulatory system should be kept as near intact as possible. To do this it is absolutely essential to ligate all vessels before removing any of the viscera of chest or abdomen.

3. The rectum should be ligated below the point of incision.

4. In removing the brain, the scalp incision should extend from ear to ear over the vertex. After removal of the skull cap and the brain, leakage from the carotid arteries should be prevented by plugging, putty, plaster of Paris, or other means. When plaster of Paris is used, especial care should be observed to permit it to dry before closing the skull.

5. The head and shoulders should be kept raised during the examination in order to allow the blood to drain away.

NOTE: The head and shoulders should be kept raised at all times after death, both in the wards and mortuary.

6. After the completion of the examination, blood and other stains should be completely removed, and incision tightly and neatly closed.

The postmortem room should be inviting, well lighted and ventilated; the floors should be kept clean; and the morale during the performing of an autopsy should be of the highest. All postmortems should be done by one properly trained, or under proper supervision. The incision should not extend too high on the sternum. It must be borne in mind that the body must be presentable at the time of the funeral. In women a high incision prevents the wearing of a low neck dress, or the customary low neck shroud. Be very careful to close the incision properly so as to prevent leakage. If it is necessary to mutilate any part of the body visible to those who attend the funeral, special permission to do so should be obtained from the person giving permission for the autopsy. The body should be properly cleansed upon the completion of the autopsy. Many undertakers complain that after a postmortem, bodies are turned over to them soiled with blood and the body secretions and excretions. In some of our institutions the postmortem examinations are being done in such a careless and unscientific manner, that when the body is turned over to the undertaker, a verbal attack is invited. When it is necessary to turn the body face down, for example in opening the spinal canal, place a pillow under the face to avoid bruising the nose.

In some communities the objection on the part of the undertaker to an autopsy is overcome by having the autopsy done at his establishment. In other words, he must obtain immediate possession of the body in order "not to lose the job." This applies more especially to the so-called little undertakers.

The undertaker always should be advised when a postmortem is to be done and notified when to call for the body. His time is as important to him as our time is to us, and there is no reason why he should be required to wait indefinitely for a body, through the indifference and disregard on the part of the administrative officers of an institution. The undertaker may be invited to be present at the postmortem. Having seen the technic used may facilitate his work in embalming. If a body is to be shipped from the community and it will expedite the work of the undertaker, he should be permitted to embalm the body in the postmortem room. Again, it may be considered advisable to

permit the undertaker, in cases where extensive removal of viscera has been done, to embalm the body before the incision is closed.

The undertakers prefer that the autopsy be done immediately, in order that the body may be embalmed as soon after death as possible. Their State Association was advised that this is not always possible for the following reasons: In hospitals connected with medical schools the autopsy is assigned for an hour when the medical students can be assembled to see it done; and as the greater number of deaths occur at night, it is preferable to hold the body until the next day, when the pathologist is on duty, and the proper technic will be assured. If proper care and attention is given the body, as outlined in another portion of this report, this objection will be obviated.

We are indebted to Dr. John A. Kolmer who has been actively experimenting along the lines of an acceptable embalming fluid, the thought being to devise for the undertaker an embalming fluid which could be injected by the embalmer, to be followed by the autopsy, thereby removing the objection to the autopsy raised by some undertakers. Such a fluid, however, must not procure any gross or histological changes in the tissues in order to be acceptable from this standpoint. He has discovered that the fluids in ordinary use contain so much formaldehyde that they are useless for this purpose, but numerous experiments have shown that the preserving fluid devised by Dr. Addinell Hewson, Secretary of the State Anatomical Board, is admirably suited. It yields perfect preservation of the tissues when injected in the usual manner and in the usual amounts, although experience has shown that the percentage of formalin is too low to set the muscles of the face, and accordingly the jaw may sag before burial takes place. It is possible, however, to inject the head with the usual embalming fluid and the balance of the body with Dr. Hewson's fluid. By a method of this kind, Dr. Kolmer has determined that the pathologist may make a thorough macroscopic and microscopic examination of the tissues after the embalming has taken place, without any changes having been produced in the tissues. The experiments are very interesting, and possibly may prove of practical value in overcoming the objections raised by some undertakers to autopsies.

The following conclusions and recommendations were submitted: (1) The medical profession must realize that it is responsible in a large measure for much of the antagonism to autopsies on the part of the undertaker, due to the careless manner in which postmortems are held in most institutions. The average undertaker is a very unlearned, ignorant man, in a business distasteful to most people—a negative business, hence it is impossible to reason with him. The unfortunate thing is that most of our undertakers are recruited from this type, and many of them are men who have been unable to find their vocation in life. He is now emerging. The State Board of Undertakers is trying to license higher-grade men than in the past. A higher standard of requirements is being exacted. Their contact with the doctor is very close, and we should do our part to instruct and coöperate with them.

(2) That the general information imparted in this report to be used to advantage by the institutions and the individual physicians, in correcting existing conditions.

(3) The necessity for educating the public, the medical profession, and the undertakers to the value of and the benefits derived from postmortems. This survey shows that the scientific zeal of any institution very largely may be judged by its low mortality rate and its high postmortem rate; that the medical executive's department and the medical staff are directly to blame for a low postmortem percentage; that there are no obstacles that cannot be removed—in so far as religion, race, and the undertaker are concerned.

(4) The postmortem percentage can be increased in any institution if the internes are properly instructed, not only on how to secure permission, but in addition, on the value of the autopsies to the internes themselves and to the institution.

(5) The visiting staff, interne staff, the superintendent, and the nursing staff must be wide awake, interested, and enthusiastic in obtaining autopsies. The interest, however, must not be carried to a degree beyond which more harm than good may be done. The greatest tact must be employed.

(6) The treatment and courtesies extended to patients, their relatives, and visitors, often makes the way very easy to obtain permission for an autopsy. The members of the visiting staff and the internes, by showing personal interest in the patient, conversing with patient's relatives and friends, answering their inquiries, makes it much more difficult for the family to refuse permission.

(7) The clergy, including Protestants, priests, the rabbis, should be invited to attend one of the staff meetings of the community institution, and their attention called to the necessity of postmortems, thereby winning their coöperation. The undertakers should be included.

(8) An institution is more likely to show interest in an undertaker who coöperates than one who

is antagonistic. The undertaker, from a selfish standpoint if no other, should bear this in mind. Undertakers of good repute, who are well known and competent, offer no objections. The smaller establishment which has but mediocre ability, is the one most apt to influence the family. The Negro and the Jewish undertakers are the most difficult to handle.

(9) The result of the district meetings, when the local associations of undertakers were addressed by a medical speaker, proved to be most beneficial, showing a spirit of coöperation and a keen desire on the part of the undertaker to help and to be helped. This reached its climax when the medical speaker addressed the annual session of the Funeral Directors' Association of the State of Pennsylvania.

A copy of the report in full was sent to each of the hospitals, sanitariums and almshouses in Pennsylvania, with an explanatory letter, calling attention to the responsibilities of the staff, the superintendent, the internes, the pathologist, the directress of the training school and the nurses. A copy also was sent to the various state medical journals; the secretaries of the state medical societies; various other medical and hospital journals, and national medical organizations, the national organizations and journals of morticians; also several copies to the Hospital Library and Service Bureau, Chicago.

A year now has elapsed since the survey was completed and recommendations duly suggested. During the past few months the Funeral Directors' Association of Pennsylvania has expressed grateful appreciation for what has been accomplished, and at the annual meetings of their local associations this year there was evidence of continued confidence.

We receive reports now and then that certain undertakers are making an additional charge of ten to fifteen dollars, when an autopsy has been done. These men are reported to their State Association and, if members, are advised of the error of their way; if not members, are shown the advantages of membership. Then, too, the superintendent of the institution should have a conference with the offending undertaker.

Unfortunately, there are some institutions that have not been aroused from their lethargy; and some coroner's physicians report that when they call at some of the institutions to make an autopsy, the interne is always conspicuous by his absence from the postmortem room. We feel, however, a wonderful amount of good has been accomplished, and the way made clear to greatly increase the number of autopsies.

POSTMORTEMS IN THE OPEN HOSPITAL

ISRAEL BROWN, M.D., F.A.C.S., Norfolk, Virginia
Surgeon, St. Vincent's Hospital and Sanitarium

HOW to increase the number of postmortems in the open hospital is a perplexing question, and one that is not given sufficient attention.

Our hospital has sixty physicians on the staff, and about thirty others attending. We have the class of patients that any open general hospital has in a city of 105,000 inhabitants. Last year we had 17.5 per cent. postmortems. This year so far we have had 45.5 per cent. This is not a large percentage, but we do not get some cases, and the pathologist feels it unnecessary to examine others.

Our record room is not sequestered in a dark closet or corner of the building, but is a large, bright room, situated on the first floor opposite the doctor's coat room, and easily accessible to all. This record room is also a living part of the hospital, and one of the busiest offices at all times. The office force is in frequent contact with the doctors, checking their records and requesting that they be completed. We have tried to center all records of patients and diseases for all departments of the hospital in this one office, so that usually any information in regard to a patient can be gained in a short time.

The record department should be an active service—have live record keepers, build up their interest and enthusiasm, so that their regard for complete records will make them also seek to increase the number of postmortems. Every death is reported to the record room, and the undertaker must also report here for his certificate, as it passes through this department. He cannot get permission to remove the body except through this office.

It is understood that the physician is acquainted with the notice of death. In fact everything must be done with the acquiescence of the attending physician, who is usually very well satisfied to have some one else ask permission from the relatives for a postmortem, and thereby relieve him of a disagreeable duty. The recorder gets in

immediate touch with the family, and the reasons for asking for a postmortem are explained to them. This can possibly be done with less objection by the registrar, as the interest here is scientific, as well as official, and not so highly personal as in the case of the attending physician. A committee from the staff on postmortems, to relieve the attending physician, has not worked as well.

The actual working of the above will precipitate a slight condition of hostility with the undertakers, but with a little firmness a truce will be declared for the time being.

The coroner is a good man to have connected with your staff. He will not only give you his postmortems in all accidental, suicidal, homicidal, or sudden deaths—because here he can use the internes to assist and give you the records, but in some cases where you could not get the postmortems, he will give you permission if the attending physician is uncertain as to the cause of death. As the coroner is usually supreme in his position, he can be called upon very often under difficult circumstances.

This continual request for postmortems is beginning to educate the people with regard to their value to the public and to the profession, so that there is now less difficulty in obtaining them.

There must be active coöperation between all departments of the hospital for a successful outcome, as difficulties and misunderstandings will frequently arise, which can only be overcome by active coördination.

Resumé:

(1) The record room must occupy a place of prominence, and be a real, integral part of the hospital organization.

(2) The recorder must be alive to the importance of the records and the value of postmortems.

(3) The coroner should be a member of the hospital staff, or closely associated with it.

REPORT ON HOSPITAL STANDARDIZATION FOR THE YEAR 1925*

Including List of Approved Hospitals of Thirty-five Beds or More in the United States, Canada and Foreign Countries

MALCOLM T. MacEACHERN, M.D.,
Director of Hospital Activities

PART I

THE American College of Surgeons has completed the eighth annual Hospital Standardization Survey for the United States and Canada. A list of approved hospitals is published herewith. This list shows the result of: (1) The eighth survey of hospitals 100 beds and over; (2) the fourth survey of hospitals 50 to 100 beds; (3) the second survey of (*a*) hospitals 35 to 50 beds, (*b*) National Homes for Disabled Volunteer Soldiers; (4) the first survey of the United States Army, Navy, Public Health Service, and Veterans' Bureau hospitals.

During the year a very careful survey was made of the Government hospitals of the United States, including the Army, Navy, Public Health Service, Veterans' Bureau, and National Homes for Disabled Volunteer Soldiers. The interest and coöperation manifested by this group of hospitals in the program of Hospital Standardization is indeed most gratifying. There has been a hearty response and desire on the part of the officers in charge to comply with the requirements and coöperate in every way possible.

Through Dr. J. R. B. Branch, of Changsha, Secretary of the Credentials Committee of the American College of Surgeons for China, a survey of twelve hospitals in China, where Fellows of the College work was commenced. The result of this survey will be reported next year. At the request of certain hospitals in New Zealand, Australia, and Hawaii, which are meeting the minimum standard requirements, their names are included in this list.

SUMMARY OF HOSPITAL STANDARDIZATION MOVEMENT

(1) For the year 1925:

(1) Hospitals of 100 beds and over:

Hospitals surveyed	995
Fully approved	826
Conditionally approved	53
Total approved	879
Percentage of hospitals approved	89.3

(2) Hospitals of 50 to 100 beds:

Hospitals surveyed	952
Fully approved	423
Conditionally approved	112
Total approved	535
Percentage of hospitals approved	56.2

*As of October 1, 1925.

(3) Hospitals of 35 to 50 beds:

Hospitals surveyed	327
Fully approved	43
Conditionally approved	17
Total approved	60
Percentage of hospitals approved	18.3

(4) Government Hospitals:

(*a*) Army:

Hospitals surveyed	5
Fully approved	5
Conditionally approved	0
Total approved	5
Percentage of hospitals approved	100

(*b*) Navy:

Hospitals surveyed	8
Fully approved	8
Conditionally approved	0
Total approved	8
Percentage of hospitals approved	100

(*c*) Public Health Service:

Surveyed	25
Fully approved	18
Conditionally approved	5
Total approved	23
Percentage of hospitals approved	92

(*d*) Veterans' Bureau:

Hospitals surveyed	50
Fully approved	45
Conditionally approved	2
Total approved	47
Percentage of hospitals approved	94

(*e*) National Homes for Disabled Volunteer Soldiers:

Hospitals surveyed	9
Fully approved	8
Conditionally approved	1
Total approved	9
Percentage of hospitals approved	100

Summary

Total number of hospitals surveyed	2380
Number of hospitals fully approved	1365
Number of hospitals conditionally approved	199
Total number of hospitals approved	1564
Percentage of hospitals approved	65.7

(*B*) For the years 1918 to 1925:

(1) Eight surveys of hospitals of 100 beds and over.

Year	Hospitals Surveyed	Hospitals Approved	Percentage
1918	692	89	12.9
1919	692	198	28.6
1920	692	407	58.8
1921	761	573	75.3
1922	812	677	83.4
1923	870	751	86.2
1924	961	831	86.5
1925	965	879	89.3

(2) Four surveys of hospitals of 50 to 100 beds.

1922	812	335	41.3
1923	916	430	46.9
1924	973	508	52.2
1925	952	535	56.2

(3) Two surveys of hospitals of 35 to 50 beds.

1924	307	49	15.9
1925	327	60	18.3

(4) One survey of Government Hospitals of the United States.

1925	100	90	90.0

(5) Summary. Total number of individual surveys of hospitals.

10,762	6322

THE 1925 SURVEY

The American College of Surgeons begs to acknowledge with sincere appreciation the splendid coöperation received from allied organizations during the year. In this connection the following organizations should be mentioned: the Council on Medical Education and Hospitals of the American Medical Association; the Canadian Medical Association; the American College of Physicians; the American, Catholic, Protestant, and Methodist Hospital Associations; the American Society of Clinical Pathologists; the American Roentgen Ray Society; the various Nursing organizations; and numerous national, state, provincial, and local allied associations, as well as governmental departments. It is most pleasing and helpful to have the coöperation of these organizations and after all, that is as it should be in such an extensive field, where there is work for all to do for many years to come.

During the year 1925 the College directed its efforts more particularly toward the survey of hospitals not on the approved list and also to those on the list which were approved with qualifications. An earnest effort was made to bring every institution up to the minimum standard requirements. The response has been most satisfactory.

In former years the annual survey was carried on from January to September. It is now continued throughout the entire year and is tending toward a permanent field staff with districting of the United States and Canada. It is hoped that this will give the College a more intimate and continuous contact with each hospital through its representative. Owing to the change in policy in regard to the survey it has been impossible to cover all the hospitals through a personal visit prior to October 1 of this year.

To secure the data pertaining to each hospital on the fully approved list, and for the further reasons stated below, a carefully thought-out questionnaire was prepared and sent to this group of hospitals. The personal visit of a competent representative from the College will follow later.

There has been an immediate and almost unanimous response to this questionnaire and widespread appreciation of the lead it gives hospitals as to the present trend of professional policies

toward more efficient service. While questionnaires may, in a degree, be unsatisfactory to the sender and the receiver, yet there are many advantages in the background for both parties, and the hospital field generally. This particular questionnaire was originally devised for the following purposes: (1) To collect the information in a simple logical manner; (2) to allow the hospitals to tell their own story as to how they were meeting the minimum standard requirements; (3) to reflect the attitude of the superintendent and the institution toward Hospital Standardization as manifested in the promptness, completeness, and accuracy of replies to the various questions; (4) to furnish hospitals with a guide as to the present trend of professional policies as related to better care of the patient.

Every questionnaire should be educational in its nature—that is, it should indicate the trend of present day policies and developments. Institutions are expected to respond eagerly and willingly in giving the information, for in this way they are contributing to the fund of hospital knowledge and research generally. It is the intention of the American College of Surgeons at as early a date as possible to give in return to each of the hospitals answering the questionnaire a complete, accurate summary of findings in the case of practically every question asked. These data, when compiled, will cover a large number of important problems affecting the professional policies of hospitals today. In addition to the data compiled this year there is much valuable information to be gleaned from the 10,762 individual surveys of hospitals made during the past eight years, all of which is being carefully studied and will later be utilized in the interests of hospitals generally. Will it not be valuable to know what one thousand or more accredited hospitals are doing in regard to extending privileges to doctors to practice therein, or the method by which they appoint their staff? Will it not be of interest and value to hospitals to know what one thousand or more accredited institutions are doing in regard to sterilizer control; the average number of nurses to patients, day and night; the average days' stay of patients; the number of hospitals carrying on physiotherapy; and other valuable information? These data covering eight years survey are now on file in the College office. The data, when compiled, will afford each institution valuable standards as a guide in the solution of many of their problems. Through this method the College plans to give back to the hospitals much more than will repay them for their trouble in completing the questionnaire.

On or about January 1, 1926, each hospital which is fully approved as meeting all the requirements of the American College of Surgeons will be given a certificate of approval which the College will, however, reserve the right to recall at any time if in its opinion the hospital is failing to fulfill the requirements of Hospital Standardization. Every hospital will be proud to display in its front hall this certificate, a photographic reproduction of which is given on page 65.

ACCOMPLISHMENTS AND AIMS

The history of Hospital Standardization, a movement for hospital betterment, is well known throughout the United States and Canada. However, to refresh this in the minds of the readers a summary may be found on page 14 of the report of the Director General.

The ultimate aims of Hospital Standardization and what is now being accomplished are: (*a*) The shortening of the average number of days the patient stays in the hospital; (*b*) the elimination of incompetent and unnecessary surgery; (*c*) the reduction of infections and complications; (*d*) the lowering of the hospital death rate. It is undoubtedly true that the days' stay of patients in hospitals has been greatly lessened, dropping from seventeen or eighteen to twelve or fourteen in the past five or six years. This is due in great measure to more intensive treatment and better focussing of all the services of the hospital on the patient. It is also interesting to note that the quality of surgery is much higher. This is due to better means of diagnosis, increased number of consultations, group study of clinical conditions, and more modern technique and procedures. Formerly many abdomens were opened in order to make the diagnosis, but now the splendid clinical facilities in hospitals enables the surgeon, physician, or specialist to make his diagnosis more accurately without resorting to radical procedures to secure the information. Through better supervision and check-up and improved technical procedures the number of infections and complications in hospitals has been very noticeably decreased. Finally, and by no means of least importance, is the fact that hospital death rates, which were formerly forty to sixty per thousand patients treated, have dropped to thirty, twenty, and even less in some instances. Thus, in every way hospitals today are becoming a greater public service in being brought to the maximum point of safety and efficiency so far as the present knowledge of medical science and hospital service can be applied.

The College fully realizes that no survey of hospitals can be carried on successfully without

giving concurrently an extensive background of service in connection with the many problems constantly arising. Such service is now being rendered by the College through its Hospital Information and Service Department. The work of this Department continues to grow rapidly, and has been much appreciated by the hospital field generally. The service is rendered through carefully edited letters or articles, abstracted authoritative data, package libraries sent out on loan and personal visit when possible by a representative from headquarters. This service is free to any hospital upon request.

PART II

Analysis of the 1925 Survey

A careful review and analysis of data collected through the 1925 survey is worthy of consideration. The following information and suggestions may be helpful to hospitals in more seriously complying with the Hospital Standardization requirements:

STAFF ORGANIZATION

A very decided improvement in staff organization is apparent in a large number of hospitals. This is manifested in more active organization, increased interest, and well directed efforts to improve the clinical efficiency of the hospital and render better service to the patient. Certain shortcomings, however, are worthy of note. The following findings and recommendations are submitted to the hospital field:

Extending Hospital Privileges to Doctors—In the present day when the designation "doctor" is so readily obtained by many unqualified persons endeavoring to get into the hospital, it is well to have a definite method to follow in safeguarding the institution when extending privileges to doctors to practice therein. Hospital privileges should not be extended promiscuously. The eligibility of the doctors should be investigated. The following suggestions may be useful to hospitals as a basis in formulating proper procedure for this purpose. The College, however, merely submits this as a suggestion or guide for hospitals when endeavoring to solve the problem.

(*a*) *Application*—A doctor desiring the privilege to practice in a hospital should make written application setting forth at least the following data: (1) Medical college from which applicant graduated and year of graduation; (2) Internship, post graduate work, and subsequent experience; (3) Name of medical society or societies of which applicant is a member in good standing; (4) Names of three to five acceptable references from the community in which the applicant is practicing or formerly practiced; (5) Agreement to abide by rules and regulations of the institution if granted the privilege to practice therein.

(*b*) *Credentializing of Applicant*—The medical staff, a committee of the medical staff, or the chief of staff should consider the application together with all the credentials and other reliable information and after due consideration make recommendation to the board of trustees.

(*c*) *Appointment to General Staff of the Hospital*—This carries with it the privilege to practice in the institution. Such appointment should be made by the board of trustees after due consideration of the recommendation of the medical staff and all other available reliable information.

(*d*) *Grouping*—Having been extended the privilege to practice in the hospital further consideration should be given by the medical staff, a committee of the medical staff, or the chief of staff, to determine the clinical group to which the applicant should be assigned.

(*e*) *Designation of Functions*—Careful consideration must finally be given to the matter of designating whether the applicant be permitted to do major or minor procedures. A period of observation for such a purpose is frequently deemed advisable.

(*f*) *Record of Professional Efficiency and Conduct*—Every hospital should keep a careful confidential record of the professional efficiency and conduct generally of each doctor privileged to practice therein. This is absolutely necessary in order that the trustees may be able to make the most intelligent appraisal of ability and fitness for appointment to medical staff or positions of trust and responsibility. Appointments of this nature should only be made after careful consideration of the applicant or proposed appointee as to competency, ethics, loyalty, and other qualities which might favorably or adversely influence subsequent relations with the hospital.

Particular attention is called to Clause A, Section 2, of the minimum standard which, in stating who shall be admitted to membership on the staff (or to hospital privileges), reads as follows: "full graduates of medicine in good standing, and legally licensed to practice in their respective states or provinces." In this there is no compromise by the American College of Surgeons. A hospital recognizing irregulars, cults, etc., and extending to them privileges to practice therein cannot expect a place on the approved list. The time has come when hospital trustees must have

the moral courage to declare without reservation that the hospital be kept for the real scientific thoroughly trained profession of medicine, rather than allowing it to be a place where the public are at the mercy of the unlearned and the unskilled. Any hospital today admitting non-medical practitioners or cultists of any kind to practice therein is far from carrying out its fundamental duty of safeguarding the health interests of the sick in the community, and under such conditions becomes a menace and a danger to society. Far better that it close its doors and cease to exist for hospital purposes. If it cannot be a well regulated hospital complying with the modern day and universally recognized conception of what it should be, then the community is better without any hospital.

Every hospital must be so operated as to assure the public that they can obtain adequate, skillful, and responsible medical service when ill. Numerous Supreme Court decisions in the United States hold trustees of hospitals responsible for the acts of their agents or employees, including all who practice therein. The Supreme Court of Ohio has ruled as follows: "Whenever a hospital fails to exercise due and responsible care in the selection of its agents, physicians, or others, it is liable." Therefore, trustees with a serious responsibility to administer must not be embarrassed through legislation or otherwise in the selection of those who shall or shall not be given the privilege of practicing in a hospital. A standard has been set for their guidance in this respect—a standard recognized practically the world over. This standard provides that only competent and ethical doctors who are full graduates of medicine in good standing and legally licensed to practice in the particular state or province concerned should have the privileges of a well regulated hospital.

Fee-splitting Prohibited in Approved Hospitals—The practice of fee-splitting is unreservedly condemned and forbidden by the American College of Surgeons and no hospital is acceptable for approval where this pernicious practice is known to be carried on. Each hospital is required to take a firm stand against this practice by resolution of the staff and board of trustees. It is further recommended that individual signatures to pledge or resolution be secured from all doctors practicing in the hospital and a copy of same filed at headquarters. While fee-splitting may not be an issue in all communities or in all hospitals it is nevertheless required that the medical staff and board of trustees go on record against this practice. It is only reasonable to assume that the medical profession and the hospitals are strongly behind the movement to wipe out this abominable and inhumanitarian practice.

Through the permission and courtesy of the Ross General Hospital of Marin County, California, the following statement by this institution is submitted as a very commendable way of explaining to hospital trustees and the public generally the evils of fee-splitting. The statement reads:

Whereas, the visiting staff of the Ross General Hospital is desirous of attaining to the standards of an accredited institution, and that an important requisite thereto is the absolute avoidance of fee division:

It Is Therefore Resolved That the staff of this hospital adopt the tenets of the American College of Surgeons, one of which is as follows:

The division of fees, or fee-splitting, is the buying and selling of patients. The practice exists in various forms, but the most usual form is as follows: A general practitioner makes a diagnosis in which surgical interference is indicated. He then refers the patient to a surgeon for operation. The surgeon operates, collects a fee and pays a portion of same to the referring physician—this last transaction being unknown to the patient. Sometimes the physician collects the fee "for a surgeon" and retains his percentage as agreed with the surgeon. Sometimes the fee is divided with the explanation to the patient that the physician "assists the surgeon" or gives the anesthetic. In many such instances the explanation is a subterfuge for fee-splitting. A competent surgeon usually has a regular assistant and an anesthetist with whom he is accustomed to work, and is more able in this way to do good work than if he permits each referring doctor to assist him.

Undoubtedly the physician should be paid for the study and diagnosis of a surgical case. But he should be paid directly for this service by the patient. In the same way the surgeon should be paid directly by the patient. The surgeon can frequently be of service to the physician and to the patient by explaining to the patient the value of the study and diagnosis made by the physician. But the accounts of the physician and the surgeon should not be confused or rendered to the patient as a single statement.

The evils of fee-splitting are:

First—It makes for incomplete surgery. The surgeon who is party to the practice gets his cases usually not upon the basis of merit, but upon the basis of percentage of fees collected that he will give to the practitioner. The more incompetent he is, as a rule, the larger a percentage of the fees he gives to his co-fee-splitters.

Second—Fee-splitting makes for unnecessary surgical operations. Under the fee-splitting system surgery becomes a commercial enterprise and not a professional service. Both the physician and the surgeon tend to make surgical diagnoses without adequate study, and the result is unnecessary surgery. Much of the unnecessary surgery of our present day is due directly to fee-splitting.

Third—Fee-splitting, by introducing dishonesty into medical practice, lowers the entire medical profession in the estimate of the public. The fee-splitter, for example, says to his patient that he refers him to a most competent surgeon, when he knows well enough that if he, the physician, were

> to be operated upon, he would select another surgeon. Further, the fee-splitter usually poses before his patient as having received little or no fee for his services when, as a matter of fact, he has received a large fee indirectly from the patient. He holds such a fee really as a theft.

The great majority of physicians and surgeons are eager to put an end to all fee-splitting. They ask hospital trustees to help them in this matter by excluding fee-splitters from the privileges of practice in hospitals.

It Is Further Resolved That the practice of the division of fees is inconsistent with the policy of the Ross General Hospital of Marin County, California, and that physicians and surgeons who divide fees are not permitted to practice in this hospital.

It Is also Further Resolved That the employing of solicitors, cappers, runners, drummers or agents, or subsidizing or paying discounts, commissions, or rebates in money or anything of value, with a view of procuring patients, to any person, firm, or corporation, shall be prohibited.

All instances of fee-splitting in standardized hospitals brought to the attention of the American College of Surgeons are immediately dealt with. Frequently the College only gets rumors of this practice, but nevertheless the matter is followed up as far as possible and a re-affirmation of their stand against fee-splitting is taken through resolution and individual signatures of the various doctors practicing therein.

Staff Conference—One of the main functions of staff organization is to hold a staff conference at regular intervals for the purpose of a thorough review and analysis of the clinical work and results of hospital treatment. Many hospitals have failed to grasp the true significance of this particular feature and therefore the following suggestions, in addition to what has been published in former reports, are submitted:

(*a*) *Attendance*—In the minimum standard the word "staff" includes all doctors privileged to practice in the hospital. This "general staff" as it might be known, includes the "appointed staff," "courtesy staff," and other groups differently designated. It is desirable that every doctor privileged to practice in the hospital attend the regular staff conference for the intelligent discussion of his clinical activities during the period under review. It is difficult to have a thorough and complete analysis of work and an all-round beneficial effect on the staff as a whole unless all the doctors working in the hospital get together at least once a month and participate freely and frankly in the discussions.

Attendance at staff conferences is obligatory in most hospitals today. Unfortunately, however, the rule is not observed as strictly as it should be. The doctor who is not interested in attending these conferences should not have a place in an approved hospital. He is not doing justice to himself, his patient, or his hospital. Unavoidable absence, when duly vouched for and recorded in writing, of course, must be recognized. The average attendance, however, should at least be 75 per cent. or over in any hospital. Hospital authorities must in the future see that there is better attendance at staff conferences.

(*b*) *Record of Proceedings*—It is the duty of the secretary of the staff to keep an accurate record of the work reviewed and discussed at each meeting. In the record it is well to amalgamate the summary monthly analysis of the work for the period under review. The American College of Surgeons' representative asks to see these minutes when surveying the hospital and securing information pertaining to staff conferences.

(*c*) *Conduct of the Staff Conference*—The staff conference must not be of the County Medical Society type. There should be no duplication of the County Medical Society program. The discussion should be limited to happenings within the four walls of the institution and must by all means be treated as confidential. It must be limited to the clinical work in the hospital which has not come up to the average or one hundred per cent. efficiency. The entire meeting should be characterized by a generous spirit of giving and receiving, where knowledge is pooled for the benefit of all present and particularly for the patient, and where we "find the facts, filter the facts, focus the facts, fix the facts, and face the facts fearlessly." Every doctor wants one hundred per cent. efficiency in his work. He cannot attain this following his individual way in medicine today. His knowledge secured in college and through subsequent internship and post graduate study must be daily supplemented by his experience. Knowledge is gained in two ways—by imparting to others and by others imparting to us. It is therefore hoped that the staff conference in hospitals will become a better means for interchange of scientific and clinical facts relating to the individual patient.

It should be the desire of each member present to get up on his feet and present his own work in a clear, concise, frank manner. He should seize the opportunity to tell his confrères about his patient who, much to his disappointment, died during the course of treatment. He should present his facts in a briefly summarized manner, soliciting opinions and comments from his listeners in order that he may gain sufficient information from their experiences to help him with the next case of a similar nature which he might have. His listeners are interested, as any one of them may have a similar case at any time. They realize that they

may profit from his experience. Thus the proper spirit of the staff conference must be developed in order that it may be well worth while, always keeping in view better service to the patient, increasing clinical efficiency, and adding to each doctor's fund of knowledge.

Good attendance and interest is contingent on a good program. Therefore, the conference committee of the staff should see that a proper program is prepared for each meeting and the work covered as thoroughly as possible. This program should include the following considerations: (1) Discussion of patients discharged since last meeting; (2) discussion of patients in the hospital; (3) reports of departments—(*a*) diagnostic and therapeutic, (*b*) case records; (4) considerations and recommendations for the improving of the professional services of the hospital.

Not all deaths need be reviewed at the staff conference unless time permits. All deaths, however, that occur in the hospital which, under average conditions should not have happened, must be taken up, as for instance: a case dying following appendectomy, herniotomy, or other conditions where usually a good result is obtained. There is not much advantage in devoting a great deal of time to the so-called inevitable deaths that occur, such as advanced tuberculosis, advanced carcinoma, senility, etc., unless from the standpoint of clinical research there is a desire to review this particular group of diseases. However, a very close inventory of the deaths during the period under review should be presented with full discussion on selected cases as indicated.

Complications and infections should be traced to the cause and from the findings such preventive measures recommended as deemed necessary. There is nothing worse for the doctor or the hospital than complications and infections. These are preventable in most instances. They keep the patient in the hospital longer, tend to chronic invalidism and bad end-results, and cause the institution a great deal of extra expense. Indirectly they prejudice friends against the hospital and the doctor. Certain unimproved patients sent out of the hospital are a very bad recommendation for any institution. The staff should determine whether or not every facility was used in making a proper diagnosis and in rendering treatment before the patient was discharged.

Conditions existing in the hospital should be studied and anything that is contrary to scientific efficiency immediately investigated by the staff while in session. Again, if a doctor has a patient in the ward with an intricate diagnosis he should be privileged to present the case to the staff for their opinion as to diagnosis and, if necessary, suggestions for treatment.

The work of diagnostic and therapeutic departments in the hospital should come under regular review. Reports of the various departments should be submitted to the staff. Is the laboratory and X-ray work up to the required quality and quantity? Is there the necessary cooperation between these departments and the medical staff? Attention should also be directed to other departments such as physiotherapy, metabolism, electrocardiograph, etc. A report from the record librarian and record committee of the staff in regard to the case histories for the month should be considered in detail, and an appraisal made embracing quality and quantity.

The medico-administrative business of the staff should be dealt with by the Executive Committee prior to the staff conference for the review of the work. The staff conference should not be limited to one or two hours—it should aim to cover thoroughly all the work under review for that period, regardless of the time it takes. If not completed at the regular meeting the work should be resumed at an adjourned meeting as early as possible.

Most staff conferences are not yet satisfactory. The majority of staffs have not fully grasped the spirit and object of the conference. It possibly is best described as the medical audit of the clinical work of the hospital. One of the chief by-products of good staff conferences is the stimulus it gives the younger members of the staff particularly to participate in discussions at the local medical society, the county medical society, the state and national medical associations, leading from one to the other; as well as a greater stimulus to read more and take post-graduate study at frequent intervals. The staff conference, therefore, if properly conducted and with the right spirit and object in view cannot help but be of all-round benefit to the patient, to the doctor, the hospital, and scientific medicine generally.

Coöperation between the Medical Staff and Board of Trustees—Many hospitals lack noticeable coöperation among the various groups interested therein. The board of trustees, the hospital staff, and the medical staff must all work with the most harmonious coöperation. Frequently there is a serious lack of coöperation between the doctors and the trustees. This is detrimental to the administrative and scientific progress of the institution. The medical staff, through its executive committee or medical board, acts as professional advisors to the super-

intendent and board of trustees on professional policies. The viewpoint of both groups must be properly assimilated. It is therefore of great advantage to the superintendent to have a satisfactory working arrangement between these groups. Occasionally we find direct representation of the medical staff on the board of trustees. While generally condemned this arrangement may be satisfactory if the staff appoints its own representative to the board of trustees and changes him every year or two, rather than the board selecting the representative and perpetuating his position as one of the trustees. Therefore, it is hoped hospitals will endeavor to better promote harmonious coöperation among and within these three great groups upon whom the institution depends entirely in functioning.

CASE RECORDS

Much has been written about case records. Much has yet to be written and done before good case records are to be found in all hospitals. However, case records are improving each year. This fact is readily apparent from closely following the Hospital Standardization movement. Four or five years ago a fairly accurate appraisal of all records in some two thousand hospitals would be very liberal in evaluating them at an aggregate of 25 per cent. Today this evaluation is estimated at between 50 and 60 per cent. Though many of these records are still far from being real genuine scientific documents, it must be acknowledged with great satisfaction that marked improvement has taken place. There is still, however, much to be done, not only in the smaller hospital but also in some of the larger institutions.

Every hospital, regardless of type, size, or location, is responsible for a good case record on each patient treated therein. This presupposes (*a*) the whole-hearted determination and coöperation of the medical staff, the management, and the personnel of the hospital in a combined effort to secure case records of a high degree of quality; (*b*) an efficient well organized department with the necessary personnel; (*c*) a definite method of securing case records promptly and efficiently; (*d*) proper supervision; (*e*) a complete history embracing all the facts pertinent to the case promptly recorded on admission of patient, and continued according to the outline recommended by the American College of Surgeons:

1. Identification data
2. Complaint
3. Personal history
4. Family history
5. History of present illness
6. Physical examination
7. Special reports
   - Consultation
   - Clinical laboratory
   - X-ray
   - Other
8. Provisional diagnosis
9. Medical or surgical treatment
10. Pathological findings
    - Gross
    - Microscopic
11. Progress notes
12. Final diagnosis
13. Condition on discharge
14. Follow-up record
15. Autopsy findings when available

Records suffer and indeed are frequently ruined by superficial and short-cut methods to barely meet the requirements. Short forms are too popular. The honest, upright physician, surgeon, or specialist whose conscience is alert in the best interests of his patient, his hospital, his profession, and himself will produce real case records and not use the short-cuts and superficial methods found in many hospitals today. The conscientious doctor who wants to do thorough work is not familiar with the terms "negative" and "normal," which so frequently constitute the bulk of a case record. It is a well known fact that too many operations and major procedures are carried out before there is a proper estimate of the patient's reserve to carry through under the extra strain. The statements "negative" and "normal" on case records are valueless, but to know how much the patient is below or above the normal average, as known to the individual clinician, is of great importance. This information gives the doctor a better chance to intelligently build up the reserve of his patient by definite means afforded through scientific medicine. When a doctor examines a patient he has three things to find out: (1) What is the pathological condition; (2) what is the physical reserve of the patient; and (3) what part has he to play in reëstablishing the normal balance or maintaining that which is best for the patient under the circumstances. An intelligent determination of the above three duties devolving on the doctor can only be made by the careful study of the recorded facts in connection with the patient's history and the findings on examination. Both the normal and pathological aspects of the patient must be thoroughly studied, particularly to determine the physical reserve which has such an important bearing on the prognosis and end-result.

Case records in hospitals should be carefully supervised to insure a high degree of quality. A triple supervision is advisable: (*a*) Through the doctor in charge of the patient, who should see that a good history is promptly produced and when completed and inspected by him, should affix his signature thereto; (*b*) through the record clerk or librarian who should see that all the component parts of the records are assembled, properly filed, and indexed; (*c*) through an efficiency or record committee from the medical

staff, who should go over all the records at frequent intervals for constructive criticism and appraisal. With such an arrangement a better quality of records will be definitely assured.

Up-to-date, complete, true records of a scientific value undoubtedly reflect the character of the hospital and particularly the medical staff working therein. The doctor who writes, or allows to be written for him, a careless, minimal record, is usually careless and minimal in his clinical work. Indeed, from a study of the case records in a hospital it is not difficult to distinguish the progressive or eminent institution from the so-called minimal or mediocre type. A good record will carry the necessary data to substantiate the provisional and pre-operative diagnosis, to warrant the operation or treatment, and finally, to justify the findings and end-result obtained. This should be the basis of appraisal for all case records.

It is hoped that all hospitals will take a much deeper interest in case records and see that material progress is made during the coming year, when a more intensive survey of this particular phase will be made. The attention of hospitals at this time is directed to a recent bulletin prepared by Miss Genevieve Morse, Record Librarian, Muhlenberg Hospital, Plainfield, New Jersey, for *Hospital Management*. It is a concise, comprehensive statement of some of the outstanding principles in case records, and makes a very valuable contribution to a difficult problem with which most hospitals have constantly to struggle.

CLINICAL LABORATORY

Most excellent progress has been made during the past year in hospitals by way of improving clinical laboratory facilities and service. The following are some of the main essentials for an efficient clinical laboratory service:

Adequate Accommodation—Greater attention is being given to the physical aspects in relation to location, planning, spacing, airing, and lighting of the department. There is a definite tendency to depart from the former custom of placing the department in the basement of the hospital. In many institutions today we find this department in close proximity to the operating rooms in order to promote closer contact and team work between the pathologist and the clinician. The choice of location, however, should depend on where contact is afforded with the greatest number of doctors attending the hospital.

Scope of Work—In discharging its full responsibility in providing the best scientific care for the patient every hospital should provide the following services: (*a*) Chemistry or clinical microscopy; (*b*) bacteriology; (*c*) serology; (*d*) pathology; (*e*) blood chemistry. One or more of these services may be required by a patient at any time and therefore should always be available during the twenty-four hours.

Efficient Personnel—An efficient clinical laboratory is dependent on good personnel—supervising, technical, and janitorial. Many hospitals today are weak in supervision, while usually good technical service obtains.

The American College of Surgeons believes and requires that the clinical laboratory should be under the supervision and direction of a competent clinical pathologist. A fundamental medical training with subsequent special training and experience is essential for (*a*) efficient administration of the department; (*b*) periodic check-up on the quality and quantity of the work being done in relation to the clinical demands; (*c*) accurate interpretation of findings; (*d*) development of technique.

According to reliable authorities there are only between seven and eight hundred clinical pathologists available in the United States and Canada to take charge of the work in some seven or eight thousand institutions, of which approximately two thousand five hundred are active general hospitals of thirty-five beds or over. It is therefore quite evident that there is a distinct shortage of well-trained clinical pathologists. The best solution at present is the grouping of hospitals under one supervising clinical pathologist, having sufficient technical assistance in each institution to do the work efficiently. Hospitals are particularly urged to improve supervision of the clinical laboratory by making arrangements with competent clinical pathologists to carry on this work through part-time or full-time service.

Records—Good record system in the hospital today consists of many units contributed by the various departments concerned. One of these units is that of the clinical laboratory, which should establish and carry out a definite, simple but thorough record system. The following outline may be considered as a basis for such a system:

(*a*) Requisition for Work Desired. This form should be applicable for all examinations. Ample space to give a very brief abstract of clinical data is desirable. Too many requisitions come to the laboratory with indefinite requests and information, thus placing the clinical pathologist at a distinct disadvantage. A comprehensive requisition will not only expedite matters but will assist the clinical pathologist in giving a more intelligent service.

(*b*) Report of Findings. This requires to be made in duplicate, one copy to go to the patient's file and the other to remain in the department as part of the record system.

(*c*) Daily Report. The daily report shows the various consecutive examinations made each day. This may be recorded in a loose-leaf system.

(*d*) Filing of Reports. Usually the vertical folder and cabinet is used for the filing of the report, arranged alphabetically or according to the patient's number.

(*e*) Cross Index. Many methods of cross indexing laboratory reports are found. A good system makes it possible to find the data by name, hospital number, and at the same time provide the necessary grouping of the various types of examinations and findings.

A summary laboratory sheet has been found desirable and practical in many hospitals. This sheet affords immediately to the doctor in charge of the patient a bird's-eye view of the amount of laboratory work done over any given period and saves him from searching through many forms.

Laboratory Charges—There has been a great deal of discussion during recent years in regard to laboratory charges. However, it still remains a matter of much diversified opinion as to the best method for a hospital to adopt in this regard. A review of the situation reveals the following methods in vogue at present:

(*a*) Adoption of a schedule of charges for the several tests performed, varying according to the nature of the examinations.

(*b*) Including of this service in the *per diem* rate charged to the patient.

(*c*) Adoption of a flat rate to include all the laboratory work.

(*d*) Providing a flat rate for some of the routine work, and making a charge for all other examinations required.

(*e*) Providing a free service, as might be granted through the federal, state, county, or endowed laboratory.

(*f*) Assigning the work to a clinical pathologist who secures part or all of the fees and provides the necessary free service.

The American College of Surgeons has not recommended any particular system, but urges that whatever method is used it should not limit or embarrass the amount of work called for and required in the best interests of the patient. It is hoped, however, that the near future will see a more uniform policy of charges worked out for hospitals.

Routine Examinations—There is also much diversified opinion as to what examinations should be routinely carried out in the hospital today. The following are generally given the most consideration in this respect: (*a*) Urinalysis; (*b*) blood examinations, red, white, and hemoglobin; (*c*) blood coagulation; (*d*) Wassermanns; (*e*) tissues from operation. The American College of Surgeons has left this matter to each hospital to work out, with the exception that they insist on the routine urinalysis and tissue examination. Considerable variance of opinion exists as to whether tonsils should be examined pathologically or not. However, I am pleased to state that each year more and more hospitals are including the pathological examination of tonsil material in their routine work.

Close Contact between the Clinical Pathologist and the Medical Staff—It is desirable that the closest contact be maintained between the clinical pathologist and the medical staff. In the past this has not always been the case. The clinician and the clinical pathologist must work hand in hand if we are going to get the best results. This can be brought about in several ways:

(*a*) Placing of the laboratory in a location accessible to the members of the medical staff, where contact is much more frequent. The laboratory should be open to the clinician at any time he wishes, and he should always receive as much personal attention as can be afforded him.

(*b*) Placing of the tissue laboratory in or adjacent to the operating suite will bring the surgeon and the clinical pathologist into much closer contact. The clinical pathologist should be available for the surgeon when he is operating. It may be an advantage to the surgeon to have the clinical pathologist see the tumor before it is removed and advise with him in regard to its removal. It is advantageous to the surgeon to have the clinical pathologist demonstrate to him the freshly removed tumor immediately after operation. In this way the surgeon keeps abreast with his gross pathology. In addition, the mutual study of the gross specimen in a fresh state will usually prevent difference of opinion as to diagnosis arising between the surgeon and pathologist later. Again, the surgeon may follow the section through the laboratory and study the microscopic findings. There is no question but what the surgeon becomes a better surgeon from contact with the clinical pathologist, and the clinical pathologist becomes a better pathologist from his contact with the surgeon. Therefore, let us stimulate this teamwork in hospitals as much as we can.

(*c*) The clinico-pathological conferences now held in all well-regulated hospitals are of untold value in bringing the clinical pathologist and the medical staff closer together. They have made staff conferences more interesting. The findings of pathological conditions, ante- and post-mortem, in themselves cannot be of much worth unless made use of and studied in relation to the living and normal. The clinico-pathological conference should embrace gross and microscopic pathology. The subject-matter of such a conference may be presented under four headings: (1) History of the case; (2) demonstration of gross and microscopic findings, either through the actual specimen or lantern slides; (3) general discussion of findings in relation to history; (4) conclusions to be drawn from the study of this material. A careful record of the clinico-pathological conference should be kept and the discussion and findings attached to the respective case histories discussed.

Difficulties Encountered in the Smaller Hospital—Difficulties have been experienced in establishing efficient laboratory service and providing competent supervision in laboratories in the smaller hospital. Frequently part of the

service can be secured from a neighboring institution or through the federal, state, or municipal laboratory. However, every hospital should make provision for the emergency examinations that are essential in assisting the doctor to make his diagnosis as quickly as possible. The American College of Surgeons believes that every hospital should be able to do the fundamental everyday tests such as urinalysis, blood examinations, coagulation, smears, spinal fluid, etc. Serology, pathology, and some of the more complicated tests can be sent out to the larger laboratory for report. Supervision of the smaller laboratory has been difficult. In many instances a clinical pathologist is not available for either part-time or full-time duty. Occasionally one of the medical staff now in clinical work, but who has had previous pathological training and experience, can be secured to assist in supervising the department until other arrangements can be made.

X-RAY DEPARTMENT

Hospitals continue to improve their X-ray service. Many new departments with modern equipment have been added during the past year. The range of use, as an adjunct in clinical medicine through newer technique, is broadening from year to year.

The following may be regarded as a minimum requirement of X-ray service in an approved hospital:

Location—The old idea of the basement location for this department is passing and today nothing lower than the ground floor should be acceptable. Many hospitals place the department in close proximity to the operating rooms, similarly to the clinical laboratory previously referred to. This has many advantages, especially in regard to better coöperation between the clinician and the radiologist, as well as in the examination of certain types of cases not readily or safely transported. However, in planning this department due consideration should be given to accessibility for doctors and patients. This is a matter of study for each individual institution.

Accommodation—Proper lighting and ventilation is necessary. Freedom from dampness and proper protection from electrical and X-ray dangers must be duly regarded. The necessary rooms or divisions required for the comfort of the patient and the expedition of the work should be provided. Hospitals planning X-ray departments would do well to make a careful study of the problem and seek experienced advice on plans which in the end would provide maximum comfort for the patient and efficiency in operating the department. A proper layout will save time and energy, and greatly increase the volume of work.

Protection—Definite means must be taken to protect the patient, the operator, and others in the department. The American College of Surgeons recommends that hospital authorities acquaint themselves with the nineteen recommendations compiled by the Safety Committee of the American Roentgen Ray Society appearing in the April, 1925 Bulletin of the American College of Surgeons, Vol. IX, No. 1, Pages 97 and 98, as submitted by James T. Case, M.D., Battle Creek, Michigan, Professor of Roentgenology, Northwestern University Medical School and Surgeon to the Battle Creek Sanitarium. A copy of these suggestions will be sent by the Hospital Information and Service Department of the American College of Surgeons upon request. Observation of these regulations will tend to prevent accidents and damage suits against hospitals.

Minimum Floor Space Required—(*a*) For hospitals 50 to 100 beds, at least 400 square feet. (*b*) For hospitals 100 to 150 beds, at least 650 square feet. (*c*) For hospitals of 150 beds and up 1,200 to 3,000 square feet.

Equipment—The X-ray department should be organized to do radiographic and fluoroscopic work at least. X-ray therapy is advisable when possible and practical. Dr. Case says: The following is regarded as the minimum equipment—

(*a*) Hospitals 50 to 100 beds:

One interrupterless transformer, of 5 kw. or more capacity, with both rheostat and auto-transformer control, and preferably with 2 mm.

Coolidge tubes, of universal and radiator type.

Upright and horizontal fluoroscope and X ray table equipped with tubestand, or a combination tilt table with facilities for fluoroscopic and radiographic work above and below the table and in the vertical position.

One Potter-Bucky diaphragm, preferably attached permanently to the X-ray table.

Upright plate changer for stereoscopic chest work (this also may be incorporated in the combination table.)

Tunnel plate changer for ordinary stereoscopic work.

Stereoscope and viewing box.

Two or more cassettes of each of the following sizes, 8x10 inches, 10x12 inches and 14x17 inches, with permanently attached intensifying screens.

One set of dark-room equipment.

Lead rubber protective gloves, aprons, goggles, time clock, and minor accessories.

(*b*) Hospitals 100 beds and over:

A more powerful interrupterless transformer than above noted.

Where therapeutic work is approved and a properly trained medical radiologist is available, 200,000 volt X-ray equipment for deep therapy may be added.

A minimum of 650 square feet floor space.

Table with Potter-Bucky diaphragm permanently attached is highly desirable.

Intensifying screens: 6 cassettes, 8 x 10 inches; 6 cassettes, 10 x 12 inches; 4 cassettes, 14 x 17 inches; all double and permanently attached.

Eye localizer and charts.

Fluoroscopic bonnet for foreign body and fracture manipulations necessary in operating room.

Every hospital should have a portable X-ray machine, particularly for non-transportable patients. This is necessary for a large percentage of patients in any active hospital.

Personnel—There should be the necessary supervising, technical, and janitorial personnel. The American College of Surgeons requires supervision through a medical radiologist in all instances. This is essential from the standpoint of administration and development of the department, the carrying on of complicated technique, and particularly the accurate interpretation of findings. Quoting again from Dr. Case, he says in part in support of the above recommendation:

> Even in those small communities where it is as yet impossible to find a man specializing in roentgenology to take charge of the hospital X-ray work, it is quite feasible for the members of the staff to pool their interests and select one of their number to devote special attention to this matter, and take definite steps to improve his ability to interpret X-ray findings. As already mentioned, it is out of the question to consider the matter of X-ray treatment by anyone not a physician, and no physician in his right mind will dare to undertake X-ray therapy unless he has had special training in this work. Otherwise one of two things is almost sure to happen: Either he will lean so far to the safe side that his therapeutic endeavors will have little or no effect, or else he will damage enough patients to shortly put an end to his therapeutic essays.

Records—Proper forms for requisitioning and reporting findings are essential. Duplicate copies, at least, of reports of findings should be made—the original going to the patient's file, the copy to be kept in the department. The majority of X-ray departments today have well organized X-ray record systems, including not only the reports referred to, but a cross-index giving at least the following information: (*a*) identification of the patient and the film by name and number; (*b*) cross-index, (1) anatomical or region examined, (2) pathological or diseased condition revealed.

The storage of X-ray films should receive careful consideration. There is a serious fire risk with the ordinary highly inflammable X-ray films unless properly protected and ventilated filing cabinets or vaults are used. Many communities have passed ordinances compelling hospitals to file these films in fireproof vaults or containers. A number of hospitals are using the non-inflammable film now available.

OTHER SERVICES

Anesthesia—Anesthesia is a very important service in the hospital and not infrequently has much to do with the end-result of treatment obtained. The rapid advances made in recent years has greatly improved methods of administration and physical effects on patients. Every hospital should aim at an efficient anesthesia service. To this end there must be a well-organized department under competent medical supervision with the necessary staff of trained and experienced assistants.

A complete physical examination of the patient is absolutely necessary prior to the administration of anesthetic. This should include particularly the heart, lungs, mouth, nose, and throat. Urinalysis and other laboratory examinations, as deemed advisable or specific to the case, are essential. The physical and laboratory findings should be duly recorded on the patient's history and carefully reviewed prior to anesthetic. In case of emergency only a rapid examination of the heart and lungs may be possible. Through this information the anesthetist can do his part more intelligently and render the best service to the patient.

It is urged that hospitals organize and develop efficient clinical follow-up on all immediate post-anesthetic cases. The medical anesthetist should closely follow up his patient after anesthetic until such time as all the effects have passed away. The data, when properly collected and recorded, are valuable in determining the relation of the anesthetic used to the clinical condition. Information of this kind is needed for the advancement of clinical medicine today.

Surgical Technique—Surgical technique and operating room procedures in general are markedly improving from year to year. Better equipment and competent technical and administrative supervision through graduate nurses is reflected in the very much improved results in surgery of the present day.

The attention of hospitals is directed to the prevention of infections. In this regard it is particularly recommended that every hospital follow a definite method in frequently checking up the efficiency of their sterilizing processes. There are several methods in use today. The following, however, appear to be the most generally found: (1) the bacteriological examination, at frequent intervals, of packages of sterilized dressings; (2) the use of a control such as the well-known Diack, one being placed in a package in each load; (3) the thorough knowledge of the mechanics of the sterilizers by the nurse in charge; (4) the frequent

checking over of the mechanics of the sterilizer by the engineer. The safest procedure is the combination of all four methods.

Increasing attention is directed toward elimination of incompetent and unnecessary surgery. In this connection the following suggestions may be helpful to hospitals:

1. The establishing of a standard of surgical efficiency.
2. The careful selection of a surgical staff and assignment of major privileges or functions.
3. The providing of a complete case record on all cases prior to operation, unless a case of emergency where limited time prohibits. This record should set forth clearly the indications for operation.
4. The posting of the pre-operative diagnosis.
5. The careful recording of technique and findings at operation.
6. The routine gross and microscopical pathological examination of all tissues removed at operation.
7. The staff conference for review and analysis of clinical work, with special attention to pathological findings in relation to clinical history.
8. The building up of a surgical conscience in the staff.

Too much importance cannot be placed on the periodic staff conference as a very large factor in promoting and maintaining surgical efficiency, provided these conferences are characterized by frankness, fearlessness, and sincerity.

Obstetrical Department—Obstetrical patients are very susceptible to infection. Hospitals should therefore take the following precautions:

1. A preliminary examination on admission to ascertain if the patient has any signs or symptoms of an infective or contagious nature such as influenza, tonsillitis, rash, or pus discharge of any kind.
2. The segregation of obstetrical patients from other types in the hospital.
3. The immediate segregation of all obstetrical patients with temperature on admission or who develop same subsequently.
4. The observation of a rigid aseptic technique in the labor room and in the ward.

It is recommended that the indications for operative procedures such as forceps, version, extraction, Cesarean section, induction of labor, etc., be duly recorded on the history and always before being carried out, if time permits. More consideration as to the indications for many of the operative procedures in obstetrics will tend to better results in this field, particularly in general hospitals.

Fracture Service—Hospitals generally are manifesting an increasing interest in the treatment of fractures, following the report of the Fracture Committee of the American College of Surgeons published some time ago setting forth a very practical minimum standard as follows:

(*A*) That all general hospitals be equipped to care for fractures; that the minimum equipment for the transportation and emergency treatment of fractures be the following or its equivalent:

1. Thomas upper extremity splints.
2. Thomas lower extremity splints with traction straps, slings, and buckle straps.
3. Hodgen splints.
4. Coaptation splints, assorted sizes.
5. Cabot wire splints.
6. Straight pieces of wood (of assorted length, width, and thickness) for splints.
7. Plaster-of-Paris bandages.
8. Some form of overhead frame for suspension.
9. Suitable X-ray apparatus, including a portable machine, if practicable.

(*B*) That it is highly desirable that one individual surgeon be responsible for the supervision of the care of fractures in each hospital service.

(*C*) That special record sheets be used for fracture cases.

All approved hospitals are now expected to comply with the above standard.

The attention of hospitals is again directed to the new fracture history form recommended by the Committee.

Physiotherapy—Physiotherapy in recent years has become more and more recognized as a valuable adjunct to treatment in special types of cases. The scope of its therapeutic application is rapidly broadening. Hospitals generally are developing this service as rapidly and extensively as possible.

Physiotherapy can be readily started on a small scale and gradually developed to a fully organized and equipped department under the full-time direction of a medical physiotherapist and carrying on the following branches of treatment: (*a*) Massage; (*b*) hydrotherapy; (*c*) electrotherapy; (*d*) heliotherapy; (*e*) mechanotherapy. This department will add greatly to the clinical efficiency of the hospital in the prevention of permanent disabilities or chronic invalidism, the rehabilitation of the physically handicapped, the hastening of convalescence, and the shortening of the days' stay of the patient in the hospital.

Nursing—Good nursing is vital to every hospital. The real test of an efficient nursing service is reflected in the care of the patient. The most excellent work of the doctor may be for nought if the nursing service fails in the aftercare of his patient. To this end every hospital should have an accredited school of nursing under the direc-

tion of competent officers and with the necessary staff for efficient graduate supervision of wards and departments. When this is not practicable an efficient graduate service throughout should be maintained.

The importance of the nurses' bedside or clinical notes has not yet been fully realized by the hospital and medical and nursing professions. The nurse has a broader function than to carry out orders and attend to the physical needs of the patient. She must keep an ever watchful eye on the patient to make accurate minute-to-minute observations on the development, progress, and course of the disease during the twenty-four hours. The nurse is, so to speak, the third eye of the doctor—the ever watchful eye which is on the patient continuously—whereas the doctor sees the patient only during his brief visit once or twice a day as a rule. On his visit he can more readily and accurately formulate a proper bird's-eye view of the progress of his patient during the past twenty-four hours through a study of the repeated observations made and recorded by the nurse in his absence. Through such findings he is not infrequently influenced as to the course of treatment or procedure to be laid down so far as the patient is concerned. How very important it is, therefore, to have these observations made accurately and expressed comprehensively.

Occasionally the statement "Pain in the abdomen," is seen on the patient's chart. This is worthless as a statement because of its indefiniteness and incompleteness. Such a condition should be more thoroughly described thus: "A sharp intermittent pain in the right lower quadrant, in the region of the appendix, radiating toward the stomach." Information of this kind is valuable to the doctor. Again, the expression: "Patient had a pain in the chest," is useless to the clinician as it is too indefinite, but: "Patient had a pain in the right side of the chest in line with the axilla, coming on after coughing," is definite, valuable knowledge for the clinician. A third familiar example: "Patient vomited," is also too indefinite, but: "Patient vomited two and one-half ounces of blood-tinged fluid shortly after eating," will help the clinician in making his diagnosis. In other words, the symptoms or observations should be described as to how, when, where, etc. The nurse cannot be separated from the case history, the diagnosis, the treatment, or the result obtained in any case requiring nursing care. She must be a reliable factor or agent in these processes. It is hoped that those in authority will teach student nurses to observe accurately and express themselves comprehensively so that the bedside or clinical observations made by the nurses will be a more valuable part of the history.

Dietary Department—A well organized dietary department under competent direction is essential in every standardized hospital. A trained dietitian is a very great advantage to the hospital in the efficient administration of the food problem, the more scientific feeding of patients and employees, and the teaching of nurses. She is thus intimately associated in her work with the three main phases of the hospital organization—medical, nursing, and business.

Dietotherapy is taking an important place in the hospital today. In recent years the dietitian has been drawn closer to, and even into, the field of scientific medicine. She has now become a valuable aid to the clinician in the observation, diagnosis, and treatment of his patient. She is now more closely associated with the clinician and the laboratory worker through the recent developments in blood chemistry and diseases of metabolism. There must be the closest coöperation between the dietitian and all other groups in the hospital, and particularly with the clinician and the laboratory worker.

Social Service—Hospitals are directing more and more attention to the development of social service activities in relation to the physical care of patients before, during, and after hospitalization. It is now fully realized that the trained social worker coöperating with the doctor in attendance is of valuable assistance in diagnosis, treatment, follow-up, and the more intelligent appraisal of end-results—not to say anything of the many advantages accruing directly to the general welfare of the patient and to the more efficient administration of the hospital in rendering its fullest community service.

The modern conception of what the functions of the social service worker should be is well summarized in the following extract taken from the report of the American Hospital Association Committee on the Survey of Hospital Social Service, Bulletin No. 23, November, 1920:

> It is a primary duty of social service in a hospital or dispensary to assist in the cure and prevention of disease in individual cases by such activities as: (1) Discovering and reporting to the physicians facts regarding the patient's personality or environment, which relate to his physical condition; (2) overcoming obstacles to successful treatment, such as may exist or arise in his home or his work; (3) assisting the physicians by arranging for supplementary care when required; (4) educating the patient in regard to his physical condition in order that he may coöperate to the best advantage with the doctor's program for the cure of the illness or the promotion of health.

The clinician cannot ignore the social aspect of his patient, but should require a social history on

every case passing through his service, if practicable, with all the findings before, during, and after hospitalization incorporated in the patient's record.

But hospitals are not finished with the patient when the hospital period is over, the account paid, or the compensation adequately adjusted. Their responsibility and interest in the patient must extend further than the exit door of the hospital. There must be a continuous, systematic follow-up in order to stabilize the scientific results established by the doctor while the patient was in the hospital. Here the trained social worker must be brought into active coöperation with the doctor through a well organized follow-up.

PART III

Higher Quality of Service Expected Today

It is reasonable to expect a higher degree of efficiency in the hospital profession with the improved environment found generally today in institutions caring for the sick. The physician, interne, nurse, technician, and all other personnel of the hospital can and should do better work than formerly. The public today, through enlightenment of recent years, is demanding better hospital service and can no longer be deceived by the inefficient institution. Indeed the time is near at hand when the public will demand that all hospitals meet the Minimum Standard at least.

Hospitals are usually classified according to basic considerations such as clinical, financial, social, governmental, denominational, educational, etc. These are material or physical classifications. The real basis of classification should be quality of service the institution is rendering and the attitude or spirit of that institution. On this basis all hospitals can be grouped into six classes: (*a*) Stagnant; (*b*) commercial; (*c*) minimal; (*d*) mediocre; (*e*) progressive; (*f*) eminent. These designations are self-explanatory as to the character of the institution. Standardized hospitals must be of the latter types, namely, progressive or eminent. These types have a distinctive physical and character background and are characterized by such fundamental qualities as justice, thoroughness, fearlessness, honesty, unselfishness, and other attributes which tend to keep them human and render the best possible service to the patient.

The quality of personnel counts most in any hospital. It is apparent that bricks, mortar, finances, and other physical or material refinements are not of primary consideration in the proper classification of hospitals today. It is the qualities of the personnel which determine the type of institution, and not infrequently a front-door diagnosis will reveal the kind of personnel within. The spirit of the institution must be right and the personnel imbued with a high degree of intelligence, earnestness, sincerity, honesty, industry, and enthusiasm in doing what they consider is in the best interests of the patient. All things today are judged by the product or end-result. "By your deeds shall ye be known," applies fittingly to hospital personnel. Every hospital, be it private, public, denominational, or otherwise, whether it wants to or not, must give an accounting to the community. The people of any community are in a position to readily see the product and the hospital cannot hide it from them. Thus, the movement of Hospital Standardization not only requires an efficient physical background to every standardized hospital, but also the right attitude and spirit in the personnel.

The Minimum Standard

1. That physicians and surgeons privileged to practice in the hospital be organized as a definite group or staff. Such organization has nothing to do with the question as to whether the hospital is "open" or "closed," nor need it affect the various existing types of staff organization. The word STAFF is here defined as the group of doctors who practice in the hospital inclusive of all groups, such as the "regular staff," "the visiting staff" and the "associate staff."

2. That membership upon the staff be restricted to physicians and surgeons who are (*a*) full graduates in medicine in good standing and legally licensed to practice in their respective states or provinces, (*b*) competent in their respective fields, and (*c*) worthy in character and in matters of professional ethics; that in this latter connection the practice of the division of fees, under any guise whatsoever, be prohibited.

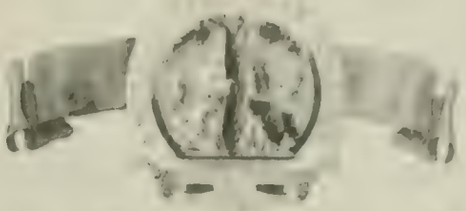
3. That the staff initiate and, with the approval of the governing board of the hospital, adopt rules, regulations, and policies governing the professional work of the hospital; that these rules, regulations, and policies specifically provide:

(*a*) That staff meetings be held at least once each month. (In large hospitals the departments may choose to meet separately.)

(*b*) That the staff review and analyze at regular intervals their clinical experience in the various departments of the hospital, such as medicine, surgery, obstetrics, and the other specialties; the clinical records of patients, free and pay, to be the basis for such review and analyses.

4. That accurate and complete records be written for all patients and filed in an accessible manner in the hospital—a complete case record being one which includes identification data; complaint; personal and family history; history of present illness; physical examination; special examinations, such as consultations, clinical laboratory, X-ray, and other examinations; provisional or working diagnosis; medical or surgical treatment; gross and microscopical pathological findings; progress notes; final diagnosis; condition on discharge; follow-up and, in case of death, autopsy findings.

5. That diagnostic and therapeutic facilities under competent supervision be available for the study, diagnosis, and treatment of patients, these to include at least: (*a*) A clinical laboratory providing chemical, bacteriological, serological, and pathological services; (*b*) an X-ray department providing radiographic and fluoroscopic services.



AMERICAN·COLLEGE·OF·SURGEONS

HAS APPROVED

PENNSYLVANIA · HOSPITAL

PHILADELPHIA

WHICH HAS COMPLIED WITH THE MINIMUM STANDARD REQUIREMENTS OF THE AMERICAN COLLEGE OF SURGEONS AS FOLLOWS

I

THAT physicians and surgeons privileged to practise in the hospital be organized as a definite group or staff; that membership in this group or staff be limited to physicians and surgeons who are competent and worthy, and that the professional work of the hospital be divided among specific departments in accordance with the organization of the staff. The governing body may appoint, as the group of doctors immediately responsible for the conduct of the professional work of the hospital, the whole staff, or a committee representative of the staff, such as the executive committee, the visiting staff, the hospital board, or the faculty of the medical school. Where the number of physicians and surgeons on the staff is sufficiently large, the governing body may appoint from the staff an executive committee to act as the immediate governing body of the hospital, to which committee all matters relating to the professional work of the hospital shall be referred for investigation and report before action is taken by the governing body. The chief executive officer of the hospital should be a member ex officio of the executive committee, but should have no vote. The chief executive officer should be responsible to the governing body for the management of the hospital in all its departments. The organization of the staff should be such as to define the responsibility of each member, and to maintain the standard of the staff by excluding therefrom those who are unworthy or incompetent.

II

THAT membership upon the staff be restricted to graduates of medicine who are graduates of medicine in good standing and legally licensed to practise in their respective states or provinces, be competent in their respective fields, and, in matters involving medical ethics and in matters of professional conduct, be subject to the same control, the practice of the members of the staff under any guise whatever be prohibited.

III

THAT the staff organize and with the approval of the governing board of the hospital adopt rules, regulations and policies governing the professional work of the hospital and that these rules, regulations and policies specifically provide

That staff meetings be held at least once every month; that complete records of all cases treated in the wards and private rooms of the hospital be written up and filed in the hospital; that regular and systematic review of these records be made with regard to the diagnosis and the end-results of all cases; that accurate and complete case records, including follow-up records, be required in all cases; that the clinical records of patients who have died be reviewed at regular staff meetings; that the clinical records of patients who have been discharged be reviewed at regular staff meetings; and that the basis for staff appointments be periodically reconsidered.

IV

THAT adequate and complete records be maintained for all patients treated in the hospital, and that a definite system be established for the immediate accessibility of these records; that the case record for each patient contain sufficient information to identify the patient, to support the diagnosis, to justify the treatment, and to show the condition of the patient on discharge; that the case record include, when indicated, a complete history, a complete record of the physical examination, reports of consultations, reports of all laboratory examinations, reports of all operations and of all obstetrical deliveries, and reports of all pathological examinations; that the case record include, when indicated, progress notes, final diagnosis, condition on discharge, follow-up and, in case of death, autopsy findings.

V

THAT diagnostic and therapeutic facilities under competent supervision be available for the study, diagnosis and treatment of patients; that these include at least a clinical laboratory providing chemical, bacteriological, serological and pathological services, and an X-ray department providing radiographic and fluoroscopic services.

THIS CERTIFICATE GRANTED BY AUTHORITY OF THE BOARD OF REGENTS OF THE AMERICAN COLLEGE OF SURGEONS

LIST OF HOSPITALS

The following is a list of approved hospitals for 1925 up to November 15. In addition to the usual list of civil hospitals the Government hospitals of the United States, including the Army, Navy, Public Health Service, Veterans' Bureau, and National Homes for Disabled Volunteer Soldiers, are listed for the first time in the history of the movement. The asterisk (*) indicates conditional approval, or that the hospitals, while they have accepted the requirements and are putting them into effect, owing to lack of time or other acceptable reasons have not been able to carry them out in every detail.

UNITED STATES

ALABAMA

100 or more beds

Birmingham Baptist Hospital, Birmingham
Employees Hospital, T. C. I. R. R. Co., Birmingham
Hillman Hospital, Birmingham
Mobile City Hospital, Mobile
Moody Hospital, Dothan
Norwood Hospital, Birmingham
Providence Infirmary, Mobile
*St. Margaret's Hospital, Montgomery
St. Vincent's Hospital, Birmingham
South Highlands Infirmary, Birmingham

50 to 100 beds

*Alabama Baptist Hospital, Selma
Children's Hospital, Birmingham
*Frazier Hospital, Dothan
John A. Andrew Memorial Hospital, Tuskegee
Vaughan Memorial Hospital, Selma
Walker County Hospital, Jasper

35 to 50 beds

Drummond Frazier Hospital, Sylacauga
Sylacauga Infirmary, Sylacauga

ARIZONA

100 or more beds

Arizona Deaconess Hospital, Phoenix
St. Joseph's Hospital, Phoenix

50 to 100 beds

*Gila County Hospital, Globe
St. Mary's Hospital and Sanitarium, Tucson
Tucson Hospital, Tucson

35 to 50 beds

Miami Inspiration Hospital, Miami

ARKANSAS

100 or more beds

Little Rock General Hospital, Little Rock
Missouri Pacific Hospital, Little Rock
St. Bernard's Hospital, Jonesboro
St. Louis Southwestern R. R. Hospital, Texarkana
St. Vincent's Infirmary, Little Rock
*Sparks Memorial Hospital, Fort Smith
State Baptist Hospital, Little Rock

50 to 100 beds

Davis Baptist Hospital, Pine Bluff
Fayetteville City Hospital, Fayetteville
Leo N. Levi Memorial Hospital, Hot Springs
Michael Meager Memorial Hospital, Texarkana
*St. Edward's Mercy Hospital, Fort Smith
*St. John's Hospital, Fort Smith
Trinity Hospital, Little Rock
Warner Brown Hospital, El Dorado

35 to 50 beds

*Helena Hospital, Helena

CALIFORNIA

100 or more beds

Alameda County Hospital, San Leandro
Angelus Hospital Association, Los Angeles
California Lutheran Hospital, Los Angeles
Children's Hospital, Los Angeles
*Fabiola Hospital, Oakland
*Franklin Hospital, San Francisco
French Hospital, San Francisco
General Hospital, Fresno
General Hospital, Santa Barbara
*Glendale Sanitarium and Hospital, Glendale
Hahnemann Hospital, San Francisco
Hollywood Hospital, Hollywood
Hospital for Children, San Francisco
Hospital of the Good Samaritan, Los Angeles
Loma Linda Sanitarium and Hospital, Loma Linda
Long Beach Community Hospital, Long Beach
Los Angeles General Hospital, Los Angeles
Mary's Help Hospital, San Francisco
Mater Misericordia Hospital, Sacramento
Mercy Hospital, San Diego
Methodist Hospital, Los Angeles
Mt. Zion Hospital, San Francisco
O'Connor Sanitarium, San Jose
Orange County Hospital, Orange
*Pacific Hospital, Los Angeles
Paradise Valley Hospital, National City
Pasadena Hospital, Pasadena
Providence Hospital, Oakland
Sacramento Hospital, Sacramento
*St. Francis Hospital, San Francisco
St. Francis Hospital, Santa Barbara
St. Helen's Sanitarium, Sanitarium
St. Joseph's Hospital, San Francisco
*St. Joseph's Hospital, Stockton
St. Luke's Hospital, San Francisco
St. Mary's Hospital, San Francisco
St. Vincent's Hospital, Los Angeles
Samuel Merritt Hospital, Oakland
*San Bernardino County Hospital, San Bernardino
San Diego County Hospital, San Diego
San Francisco Hospital, San Francisco
*San Jose Hospital, San Jose
Santa Barbara Cottage Hospital, Santa Barbara
Santa Clara County Hospital, San Jose
Santa Fe Coast Lines Hospital, Los Angeles

Seaside Hospital, Long Beach
Southern Pacific Hospital, San Francisco
Stanford University and Lane Hospitals, San Francisco
Sutter Hospital, Sacramento
University of California Hospital, San Francisco
White Memorial Hospital, Los Angeles

50 to 100 beds

Clara Barton Hospital, Los Angeles
*Community Hospital, Belmont
Golden State Hospital, Los Angeles
Kaspare Cohn Hospital, Los Angeles
Mercy Hospital, Bakersfield
*Mills Memorial Hospital, San Mateo
Orthopædic Hospital, Los Angeles
Ramona and Sequoia Hospitals, San Bernardino
*Ross General Hospital, Ross
Scripps Memorial Hospital, La Jolla
Shriners' Orthopedic Hospital, San Francisco
St. Mary's Long Beach Hospital, Long Beach
University Infirmary, Berkeley
Woodland Sanitarium, Woodland

35 to 50 beds

Baby's Hospital, Oakland

COLORADO

100 or more beds

Beth-El Hospital, Colorado Springs
Boulder-Colorado Sanitarium, Boulder
Children's Hospital, Denver
Denver General Hospital, Denver
Glockner General Hospital, Colorado Springs
Mercy Hospital, Denver
Minnequa Hospital, Pueblo
St. Anthony's Hospital, Denver
St. Francis Hospital, Colorado Springs
St. Joseph's Hospital, Denver
St. Luke's Hospital, Denver
St. Mary's Hospital, Pueblo

50 to 100 beds

Beth Israel Hospital, Denver
Community Hospital, Boulder
Denver and Rio Grande Western R. R. Hospital, Salida
*Mt. St. Rafael Hospital, Trinidad
*Red Cross Hospital, Salida

35 to 50 beds

Atchison, Topeka, and Santa Fe R. R. Hospital, La Junta
*Park Avenue Hospital, Denver
Parkview Hospital, Pueblo

CONNECTICUT

100 or more beds

Bridgeport Hospital, Bridgeport
Danbury Hospital, Danbury
Grace Hospital, New Haven
Greenwich Hospital, Greenwich
Hartford Hospital, Hartford
Hospital of St. Raphael, New Haven
Lawrence and Memorial Associated Hospitals, New London
Meriden Hospital, Meriden
Middlesex Hospital, Middleton
Mt. Sinai Hospital, Hartford
Municipal Hospital, Hartford
New Britain Hospital, New Britain
New Haven Hospital, New Haven
St. Francis Hospital, Hartford
St. Mary's Hospital, Waterbury
St. Vincent's Hospital, Bridgeport
Stamford Hospital, Stamford
Waterbury Hospital, Waterbury

50 to 100 beds

*Backus (William W.) Infirmary, Norwich
Charlotte Hungerford Hospital, Torrington
*Home Memorial Hospital, New London
*Litchfield County Hospital, Winsted
Manchester Memorial Hospital, South Manchester
Norwalk General Hospital, Norwalk

DELAWARE

100 or more beds

Delaware Hospital, Wilmington

50 to 100 beds

Homeopathic Hospital, Wilmington
*Physicians and Surgeons Hospital, Wilmington

DISTRICT OF COLUMBIA

100 or more beds

Central Dispensary and Emergency Hospital Washington
Children's Hospital, Washington
Columbia Hospital for Women, Washington
Episcopal Eye, Ear, Nose and Throat Hospital, Washington
Freedman's Hospital, Washington
*Gallinger Municipal Hospital, Washington
Garfield Memorial Hospital, Washington
George Washington University Hospital, Washington
Georgetown University Hospital, Washington
Providence Hospital, Washington
Washington Sanitarium, Washington

FLORIDA

100 or more beds

Duval County Hospital, Jacksonville
Jackson Memorial Hospital, Miami
St. Luke's Hospital, Jacksonville
*St. Vincent's Hospital, Jacksonville

50 to 100 beds

East Coast Hospital, St. Augustine
Faith Hospital, St. Petersburg
Gordon Keller Memorial Hospital, Tampa

35 to 50 beds

Bayside Hospital, Tampa
Riverside Hospital, Jacksonville

GEORGIA

100 or more beds

*City Hospital, Columbus
Davis-Fischer Hospital, Atlanta
Georgia Baptist Hospital, Atlanta
Grady Memorial Hospital, Atlanta
John D. Archbold Memorial Hospital, Thomasville
*Macon Hospital, Macon
Piedmont Sanitarium, Atlanta
*Rawlings Sanitarium, Sandersville

St. Joseph's Infirmary, Atlanta
University Hospital, Augusta
Wesley Memorial Hospital, Atlanta

50 to 100 beds

Athens General Hospital, Athens
Atlantic Coast Lines Hospital, Waycross
Downey Hospital, Gainesville
Harbin Hospital, Rome
*Middle Georgia Sanitarium, Macon
*St. Mary's Hospital, Athens
Scottish Rite Hospital, Decatur
Wilhenford Hospital, Augusta
Wise Sanitarium, Plains

35 to 50 beds

*Phoebe Putney Memorial Hospital, New Albany

IDAHO

100 or more beds

St. Alphonsus Hospital, Boise

50 to 100 beds

Latter-Day Saints Hospital, Idaho Falls
Pocatello General Hospital, Pocatello
*Providence Hospital, Wallace
St. Anthony's Hospital, Pocatello
St. Joseph's Hospital, Lewiston
St. Luke's Hospital, Boise

35 to 50 beds

*St. Maries Hospital, St. Maries

ILLINOIS

100 or more beds

Augustana Hospital, Chicago
Blessing Hospital, Quincy
Chicago Lying-in Hospital, Chicago
Chicago Memorial Hospital, Chicago
Children's Memorial Hospital, Chicago
Columbus Hospital, Chicago
Cook County Hospital, Chicago
Decatur and Macon County Hospital, Decatur
Evanston Hospital, Evanston
Frances E. Willard Hospital, Chicago
Garfield Park Hospital, Chicago
Grant Hospital, Chicago
Henrotin Hospital, Chicago
*Hinsdale Sanitarium, Hinsdale
Hospital of St. Anthony de Padua, Chicago
Illinois Central Hospital, Chicago
Illinois Eye and Ear Infirmary, Chicago
John B. Murphy Hospital, Chicago
Lake View Hospital, Danville
Lutheran Deaconess Hospital, Chicago
Lutheran Memorial Hospital, Chicago
Mercy Hospital, Chicago
Michael Reese Hospital, Chicago
Misericordia Hospital, Chicago
*Moline Public Hospital, Moline
Mt. Sinai Hospital, Chicago
Oak Park Hospital, Oak Park
Presbyterian Hospital, Chicago
Ravenswood Hospital, Chicago
Rockford Hospital, Rockford
Roseland Community Hospital, Chicago
St. Anne's Hospital, Chicago
St. Anthony's Hospital, Rock Island
St. Bernard's Hospital, Chicago
St. Elizabeth's Hospital, Chicago
*St. Elizabeth's Hospital, Danville
St. Francis Hospital, Blue Island
St. Francis Hospital, Evanston
St. Francis Hospital, Peoria
St. Joseph's Hospital, Chicago
St. Joseph's Hospital, Joliet
St. Luke's Hospital, Chicago
St. Mary's Hospital, Cairo
St. Mary's Hospital, East St. Louis
St. Mary's Hospital, Kankakee
St. Mary's Hospital, Quincy
St. Mary of Nazareth Hospital, Chicago
Silver Cross Hospital, Joliet
South Shore Hospital, Chicago
Swedish Covenant Hospital, Chicago
University Hospital, Chicago
Wesley Memorial Hospital, Chicago

50 to 100 beds

Highland Park Hospital, Highland Park
Huber Memorial Hospital, Pana
Illinois Masonic Hospital, Chicago
Ingalls Memorial Hospital, Harvey
Kewanee Public Hospital, Kewanee
Lake View Hospital, Chicago
*Lutheran Hospital, Moline
North Chicago Hospital, Chicago
Olney Sanitarium, Olney
Our Savior's Hospital, Jacksonville
Passavant Memorial Hospital, Jacksonville
*Post-Graduate Hospital, Chicago
*Provident Hospital, Chicago
St. Andrew's Hospital, Murphysboro
*St. Elizabeth's Hospital, Granite City
*St. Francis Hospital, Freeport
St. Francis Hospital, Kewanee
St. Joseph's Hospital, Alton
Washington Boulevard Hospital, Chicago
*Women's and Children's Hospital, Chicago

35 to 50 beds

*Berwyn Medical Unit, Berwyn
*Streeter Hospital, Chicago

INDIANA

100 or more beds

Epworth Hospital, South Bend
Fort Wayne Lutheran Hospital, Fort Wayne
Gary Hospital, Gary
Indianapolis City Hospital, Indianapolis
*Methodist Episcopal Hospital, Indianapolis
Methodist Hospital, Gary
*Protestant Deaconess Hospital, Evansville
St. Anthony's Hospital, Terre Haute
St. Edward's Hospital, New Albany
St. Elizabeth's Hospital, LaFayette
St. Joseph's Hospital, Ft. Wayne
St. Joseph's Hospital, Mishawaka
St. Joseph's Hospital, South Bend
St. Margaret's Hospital, Hammond
*St. Mary's Hospital, Evansville
St. Mary's Mercy Hospital, Gary
*St. Vincent's Hospital, Indianapolis
Union Hospital, Terre Haute
University Hospital, Indianapolis

50 to 100 beds

Clinton County Hospital, Frankfort
Grant County Hospital, Marion

Holy Family Hospital, LaPorte
LaFayette Home Hospital, LaFayette
Muncie Home Hospital, Muncie
Reid Memorial Hospital, Richmond
St. John's Hospital, Anderson
*St. Joseph's Hospital, Logansport
Wabash Valley Sanitarium and Hospital, La Fayette
Walker Hospital, Evansville

IOWA

100 or more beds

Finley Hospital, Dubuque
Iowa Lutheran Hospital, Des Moines
Iowa Methodist Hospital, Des Moines
Jennie Edmundson Hospital, Council Bluffs
Mercy Hospital, Cedar Rapids
Mercy Hospital, Council Bluffs
Mercy Hospital, Davenport
Mercy Hospital, Des Moines
*Mercy Hospital, Iowa City
St. Joseph's Hospital, Dubuque
St. Joseph's Mercy Hospital, Sioux City
St. Vincent's Hospital, Sioux City
University Hospital, Iowa City

50 to 100 beds

Des Moines City Hospital, Des Moines
Iowa Congregational Hospital, Des Moines
Iowa State College Hospital, Ames
Jane Lamb Memorial Hospital, Clinton
Lutheran Hospital, Sioux City
Methodist Hospital, Sioux City
*Ottumwa Hospital, Ottumwa
Park Hospital, Mason City
St. Francis Hospital, Waterloo
*St. Joseph's Hospital, Keokuk
St. Joseph's Mercy Hospital, Clinton
St. Joseph's Mercy Hospital, Ft. Dodge
St. Joseph's Mercy Hospital, Mason City
St. Joseph's Mercy Hospital, Waverly
St. Luke's Hospital, Cedar Rapids
*St. Luke's Hospital, Davenport

35 to 50 beds

*Atchison, Topeka, and Santa Fe R. R. Hospital, Fort Madison
*Cedar Valley Hospital, Charles City

KANSAS

100 or more beds

Bell Memorial Hospital, Kansas City
Bethany Methodist Hospital, Kansas City
St. Francis Hospital, Wichita
St. Margaret's Hospital, Kansas City
Santa Fe Hospital, Topeka
Wesley Hospital, Wichita
Wichita Hospital, Wichita

50 to 100 beds

Axtell Hospital, Newton
Bethel Deaconess Hospital, Newton
Christ Hospital, Topeka
Grace Hospital, Hutchinson
Halstead Hospital, Halstead
Jane C. Stormont Hospital, Topeka
*Mercy Hospital, Fort Scott
*Missouri, Kansas and Texas R. R. Hospital, Parsons
Mount Carmel Hospital, Pittsburg
Providence Hospital, Kansas City
St. Anthony's Hospital, Hays
St. Anthony's Murdock Memorial Hospital, Sabetha
St. Elizabeth's Hospital, Hutchinson
St. Francis Hospital, Topeka
*St. John's Hospital, Leavenworth
St. John's Hospital, Salina
St. Joseph's Hospital, Concordia
St. Rose's Hospital, Great Bend

35 to 50 beds

Hatcher Hospital, Wellington

KENTUCKY

100 or more beds

Baptist Hospital, Louisville
Good Samaritan Hospital, Lexington
Louisville City Hospital, Louisville
Norton Memorial Hospital, Louisville
St. Anthony's Hospital, Louisville
St. Elizabeth's Hospital, Covington
St. Joseph's Hospital, Lexington
St. Joseph's Infirmary, Louisville
Sts. Elizabeth and Mary Hospital, Louisville

50 to 100 beds

*Ashland General Hospital, Ashland
*Booth Memorial Hospital, Covington
Children's Free Hospital, Louisville
*Jewish Hospital, Louisville
Illinois Central Hospital, Paducah
*King's Daughters' Hospital, Ashland
Lynch Mines Hospital, Lynch Mines
Methodist Episcopal Hospital, Louisville
Speers Memorial Hospital, Dayton
Wm. Mason Memorial Hospital, Murray

35 to 50 beds

Robinson Hospital, Berea

LOUISIANA

100 or more beds

Charity Hospital, New Orleans
Charity Hospital, Shreveport
Hotel Dieu, New Orleans
North Louisiana Sanitarium, Shreveport
Our Lady of the Lake Sanitarium, Baton Rouge
Presbyterian Hospital, New Orleans
St. Francis Sanitarium, Monroe
T. E. Schumpert Memorial Hospital, Shreveport
Touro Infirmary, New Orleans

50 to 100 beds

*Baptist Hospital, Alexandria
Eye, Ear, Nose, and Throat Hospital, New Orleans
Flint-Goodridge Hospital, New Orleans
Highland Sanitarium, Shreveport
Illinois Central R. R. Hospital, New Orleans
Mercy Hospital, New Orleans
St. Patrick's Sanitarium, Lake Charles
Shriners' Hospital for Crippled Children, Shreveport
*Sullivan (Elizabeth) Memorial Hospital, Bogalusa

35 to 50 beds

*New Orleans Dispensary for Women and Children, New Orleans

MAINE

100 or more beds

Central Maine General Hospital, Lewiston
Eastern Maine General Hospital, Bangor
Maine Eye and Ear Infirmary, Portland
Maine General Hospital, Portland
St. Mary's General Hospital, Lewiston

50 to 100 beds

Bath City Hospital, Bath
Children's Hospital, Portland
St. Barnabas Hospital, Portland
State Street Hospital, Portland

MARYLAND

100 or more beds

Allegany Hospital, Cumberland
Baltimore City Hospital, Baltimore
Children's Hospital, Baltimore
Church Home and Infirmary, Baltimore
Colonial Hospital, Baltimore
Franklin Square Hospital, Baltimore
Hebrew Hospital and Asylum, Baltimore
Hospital for Women of Maryland, Baltimore
Johns Hopkins Hospital, Baltimore
Maryland General Hospital, Baltimore
Mercy Hospital, Baltimore
*Peninsula General Hospital, Salisbury
St. Agnes Hospital, Baltimore
St. Joseph's Hospital, Baltimore
Union Memorial Hospital, Baltimore
University Hospital, Baltimore
West Baltimore Hospital, West Baltimore

50 to 100 beds

Cambridge-Maryland Hospital, Cambridge
Emergency Hospital, Easton
Frederick City Hospital, Frederick
James Lawrence Kerman Hospital, Baltimore
South Baltimore Hospital, Baltimore
Western Maryland Hospital, Cumberland

35 to 50 beds

Howard A. Kelly Hospital, Baltimore
Volunteers of America Hospital, Baltimore

MASSACHUSETTS

100 or more beds

Beverly Hospital, Beverly
Boston City Hospital, Boston
Boston Lying-in Hospital, Boston
Brockton Hospital, Brockton
Burbank Hospital, Fitchburg
Cambridge City Hospital, Cambridge
Cambridge Hospital, Cambridge
Carney Hospital, Boston
Children's and Infant's Hospitals, Boston
City Hospital, Fall River
Cooley-Dickinson Hospital, Northampton
Free Hospital for Women, Boston
Gale Hospital, Haverhill
Henry Heywood Memorial Hospital, Gardiner
Holyoke City Hospital, Holyoke
House of Mercy Hospital, Pittsfield
Lawrence General Hospital, Lawrence
Long Island Hospital, Boston
Lowell Corporation Hospital, Lowell
Lowell General Hospital, Lowell
Lynn Hospital, Lynn
Malden Hospital, Malden
Massachusetts Charitable Eye and Ear Hospital, Boston
Massachusetts General Hospital, Boston
Massachusetts Homeopathic Hospital, Boston
Memorial Hospital, Worcester
Mercy Hospital, Springfield
New England Baptist Hospital, Boston
New England Deaconess Hospital, Boston
New England Hospital for Women and Children, Boston
Newton Hospital, Newton Lower Falls
Noble Hospital, Westfield
North Adams Hospital, North Adams
Peter Bent Brigham Hospital, Boston
Providence Hospital, Holyoke
Robert Breck Brigham Hospital, Boston
St. Elizabeth's Hospital, Boston
St. John's Hospital, Lowell
St. Luke's Hospital, New Bedford
St. Vincent's Hospital, Worcester
Salem Hospital, Salem
Springfield Hospital, Springfield
Truesdale Hospital, Fall River
Union Hospital, Fall River
Waltham Hospital, Waltham
*Wesson Memorial Hospital, Springfield
Worcester City Hospital, Worcester

50 to 100 beds

Anna Jaques Hospital, Newburyport
Beth Israel Hospital, Boston
Charles Choate Memorial Hospital, Woburn
*Chelsea Memorial Hospital, Chelsea
City Hospital, Quincy
Clinton Hospital, Clinton
*Emerson Hospital, Boston
Fairlawn Hospital, Worcester
Farren Memorial Hospital, Montague City
Faulkner Hospital, Boston
Goddard Hospital, Brockton
Hale Hospital, Haverhill
Hart Private Hospital, Roxbury
House of the Good Samaritan, Boston
Melrose Hospital, Melrose
Somerville Hospital, Somerville
Sturdy Memorial Hospital, Attleboro
Symmes Arlington Hospital, Arlington
Thomas (Josiah B.) Hospital, Peabody
*Union Avenue Hospital, Framingham
Wesson Maternity Hospital, Springfield

35 to 50 beds

Evangeline Booth Home and Hospital, Boston

MICHIGAN

100 or more beds

Battle Creek Sanitarium, Battle Creek
Blodgett Memorial Hospital, Grand Rapids
Butterworth Hospital, Grand Rapids
Children's Free Hospital, Detroit
Detroit Receiving Hospital, Detroit
Evangelical Deaconess Hospital, Detroit
Foote (W. A.) Memorial Hospital, Jackson
Grace Hospital, Detroit
Harper Hospital, Detroit
Hackley Hospital, Muskegon
Henry Ford Hospital, Detroit
Highland Park General Hospital, Highland Park

House of Providence, Detroit
Hurley Hospital, Flint
Mercy Hospital, Bay City
Mercy Hospital, Muskegon
New Borgess Hospital, Kalamazoo
Nichol's Memorial Hospital, Battle Creek
Old Borgess Hospital, Kalamazoo
St. Joseph's Hospital, Ann Arbor
St. Joseph's Hospital, Mt. Clemens
St. Lawrence Hospital, Lansing
St. Mary's Hospital, Grand Rapids
St. Mary's Hospital, Detroit
Saginaw General Hospital, Saginaw
Sparrow (Edward W.) Hospital, Lansing
University Hospital, Ann Arbor
Women's Hospital and Infants' Home, Detroit

50 to 100 beds

Bronson Hospital, Kalamazoo
Delray Industrial Hospital, Detroit
*Detroit Eye and Ear Hospital, Detroit
James W. Sheldon Hospital, Albion
Jefferson Clinic Hospital, Detroit
Memorial Hospital, Owosso
*Mercy Hospital, Cadillac
Mercy Hospital, Jackson
*St. Francis Hospital, Escanaba
St. Joseph's Hospital, Hancock
St. Joseph's Hospital, Detroit
*St. Luke's Hospital, Marquette
*St. Mary's Hospital, Marquette
St. Mary's Hospital, Saginaw
Woman's Hospital, Saginaw

35 to 50 beds

Ishpeming Hospital, Ishpeming
Michigan Mutual Hospital, Detroit

MINNESOTA

100 or more beds

Abbott Hospital, Minneapolis
Ancker Hospital, St. Paul
Asbury Hospital, Minneapolis
Bethesda Hospital, St. Paul
Colonial Hospital, Rochester
Deaconess Hospital, Minneapolis
Eitel Hospital, Minneapolis
Fairview Hospital, Minneapolis
Gillette State Hospital for Indigent Children, St. Paul
Kahler Hospital, Rochester
Maternity Hospital, Minneapolis
Miller (Charles T.) Hospital, St. Paul
Minneapolis General Hospital, Minneapolis
Mounds Park Sanitarium, St. Paul
Northern Pacific Beneficial Association Hospital, St. Paul
Northwestern Hospital, Minneapolis
St. Barnabas Hospital, Minneapolis
St. John's Hospital, St. Paul
St. Joseph's Hospital, St. Paul
St. Luke's Hospital, Duluth
St. Luke's Hospital, St. Paul
St. Mary's Hospital, Duluth
St. Mary's Hospital, Minneapolis
St. Mary's Hospital, Rochester
St. Paul Hospital, St. Paul
Swedish Hospital, Minneapolis
University of Minnesota Hospital, Minneapolis
Winona General Hospital, Winona
Worrell Hospital, Rochester

50 to 100 beds

Hill Crest Surgical Hospital, Minneapolis
*Immanuel Hospital, Mankato
St. Gabriel's Hospital, Little Falls
St. Joseph's Hospital, Brainerd
St. Joseph's Hospital, Mankato
St. Luke's Hospital, Fergus Falls
St. Raphael's Hospital, St. Cloud
Shriners' Hospital for Crippled Children, Minneapolis
Warren General Hospital, Warren

35 to 50 beds

Morgan Park Hospital, Duluth
*St. Andrew's Hospital, Minneapolis

MISSISSIPPI

100 or more beds

King's Daughters' Hospital, Gulfport
Matty Hersee Hospital, Meridian
Mississippi Baptist Hospital, Jackson
Mississippi State Charity Hospital, Jackson
South Mississippi Charity Hospital, Laurel

50 to 100 beds

Houston Hospital, Houston
Jackson Infirmary, Jackson
King's Daughters' Hospital (white), Greenville
South Mississippi General Hospital, Hattiesburg
Vicksburg Infirmary, Vicksburg

35 to 50 beds

*Biloxi Hospital, Biloxi
Dr. Hairston's Hospital, Meridian
J. Z. George Memorial Hospital, A. and M. College
Tupelo Hospital, Tupelo
Winona Infirmary, Winona

MISSOURI

100 or more beds

Alexian Brothers Hospital, St. Louis
Barnes Hospital, St. Louis
Bethesda Hospital, St. Louis
Children's Hospital, Kansas City
Christian Church Hospital, Kansas City
Evangelical Deaconess Home and Hospital, St. Louis
*Grace Hospital, Kansas City
Frisco Employees Hospital, St. Louis
Jewish Hospital, St. Louis
Kansas City General Hospital, Kansas City
Kansas City General Hospital, (Colored Division) Kansas City
Lutheran Hospital, St. Louis
Methodist Hospital, St. Joseph
Missouri Baptist Sanitarium, St. Louis
Missouri Pacific R. R. Hospital, St. Louis
Research Hospital, Kansas City
St. Anthony's Hospital, St. Louis
St. John's Hospital, St. Louis
St. Joseph's Hospital, St. Louis
St. Joseph's Hospital, Kansas City
St. Louis Children's Hospital, St. Louis
St. Louis City Hospital, St. Louis
St. Louis City Hospital, No. 2, St. Louis
St. Louis Mullanphy Hospital, St. Louis
St. Luke's Hospital, Kansas City
St. Luke's Hospital, St. Louis
St. Mary's Infirmary, St. Louis
St. Mary's Hospital, Kansas City

50 to 100 beds

Boone County Hospital, Columbia
Frisco Employees Hospital, Springfield
Independence Sanitarium, Independence
Noyes Hospital, St. Joseph
St. Francis Hospital, Cape Girardeau
St. Francis Hospital, Maryville
St. John's Hospital, Joplin
St. Louis Baptist Hospital, St. Louis
St. Mary's Hospital, Jefferson City
*Trinity Lutheran Hospital, Kansas City
University Hospital, Columbia
Wheatley Provident Hospital, Kansas City

35 to 50 beds

Barnard Free Skin and Cancer Hospital, St. Louis
St. Louis Maternity Hospital, St. Louis

MONTANA

100 or more beds

Columbus Hospital, Great Falls
Holy Rosary Hospital, Miles City
Montana Deaconess Hospital, Great Falls
Murray Hospital, Butte
St. James Hospital, Butte
St. Patrick's Hospital, Missoula
St. Vincent's Hospital, Billings

50 to 100 beds

*Northern Pacific Beneficial Association Hospital, Glendive
Northern Pacific Beneficial Association Hospital, Missoula
St. Ann's Hospital, Anaconda
*St. John's Hospital, Helena
*St. Joseph's Hospital, Lewistown
*St. Peter's Hospital, Helena

NEBRASKA

100 or more beds

Bishop Clarkson Memorial Hospital, Omaha
Nebraska Methodist Episcopal Hospital, Omaha
Nebraska Orthopedic Hospital, Lincoln
St. Elizabeth's Hospital, Lincoln
St. Francis Hospital, Grand Island
St. Joseph's Hospital, Omaha
St. Mary's Hospital, Columbus
University of Nebraska Hospital, Omaha

50 to 100 beds

Immanuel Hospital, Omaha
*St. Joseph's Hospital, Alliance
Swedish Mission Hospital, Omaha
West Nebraska Hospital, Scottsbluff
Wise Memorial Hospital, Omaha

35 to 50 beds

*Falls City Hospital, Falls City

NEVADA

50 to 100 beds

Elko General Hospital, Elko
St. Mary's Hospital, Reno

35 to 50 beds

*Steptoe Valley Hospital, East Ely

NEW HAMPSHIRE

100 or more beds

*St. Joseph's Hospital, Nashua

50 to 100 beds

Claremont Hospital, Claremont
Elliott Community Hospital, Keene
Elliott Hospital, Manchester
*Laconia Hospital, Laconia
Mary Hitchcock Memorial Hospital, Hanover
*Nashua Memorial Hospital, Nashua
Notre Dame Hospital, Manchester
Sacred Heart Hospital, Manchester

35 to 50 beds

*Portsmouth Hospital, Portsmouth

NEW JERSEY

100 or more beds

Alexian Brothers Hospital, Elizabeth
All Souls' Hospital, Morristown
Atlantic City Hospital, Atlantic City
Bayonne Hospital and Dispensary, Bayonne
Christ Hospital, Jersey City
Cooper Hospital, Camden
Elizabeth General Hospital, Elizabeth
Englewood Hospital, Englewood
Hackensack Hospital, Hackensack
Jersey City Hospital, Jersey City
Mercer Hospital, Trenton
Monmouth Memorial Hospital, Long Branch
Morristown Memorial Hospital, Morristown
Mountainside Hospital, Montclair
Muhlenberg Hospital, Plainfield
Newark Beth Israel Hospital, Newark
Newark City Hospital, Newark
Newark Memorial Hospital, Newark
Newark Presbyterian Hospital, Newark
Orange Memorial Hospital, Orange
Passaic General Hospital, Passaic
Paterson General Hospital, Paterson
Perth Amboy City Hospital, Perth Amboy
St. Barnabas Hospital, Newark
St. Elizabeth's Hospital, Elizabeth
St. Francis Hospital, Jersey City
St. Francis Hospital, Trenton
*St. Gerard's Italian Hospital, Newark
St. James Hospital, Newark
St. Joseph's Hospital, Paterson
St. Mary's Hospital, Hoboken
St. Mary's Hospital, Orange
St. Michael's Hospital, Newark
St. Mary's Hospital, Passaic
St. Peter's General Hospital, New Brunswick
West Jersey Homeopathic Hospital, Camden

50 to 100 beds

Ann May Memorial Hospital, Spring Lake
Homeopathic Hospital, Newark
Hospital for Women and Children, Newark
*Irvington General Hospital, Irvington
Miriam and Nathan Barnert Memorial Hospital, Paterson
Middlesex General Hospital, New Brunswick
Newcomb Hospital, Vineland
Newark Eye and Ear Infirmary, Newark
North Hudson Hospital, Weehawken
Overlook Hospital, Summitt
William McKinley Memorial Hospital, Trenton

35 to 50 beds

Babies' Hospital, Newark
*Burlington County Hospital, Mt. Holly

NEW MEXICO

50 to 100 beds

St. Joseph's Hospital, Albuquerque
*St. Mary's Hospital, Gallup
*St. Mary's Hospital, Roswell
St. Vincent's Hospital, Santa Fe

NEW YORK

100 or more beds

Albany Hospital, Albany
Arnot-Ogden Memorial Hospital, Elmira
Auburn City Hospital, Auburn
Bellevue Hospital, New York City
Beth David Hospital, New York City
Beth Israel Hospital, New York City
Beth Moses Hospital, Brooklyn
Binghamton Hospital, Binghamton
Broad Street Hospital, New York City
Bronx Hospital, New York City
Brooklyn Hospital, Brooklyn
Brownsville and East New York Hospital, Brooklyn
Buffalo City Hospital, Buffalo
Buffalo General Hospital, Buffalo
Buffalo Hospital of Sisters of Charity, Buffalo
Bushwick Hospital, Brooklyn
Children's Hospital, Buffalo
Columbus Extension Hospital, New York City
Community Hospital, New York City
Coney Island Hospital, Brooklyn
Crouse-Irving Hospital, Syracuse
Cumberland Street Hospital, Brooklyn
Deaconess Home and Hospital, Buffalo
Ellis Hospital, Schenectady
Faxton Hospital, Utica
Fifth Avenue Hospital, New York City
Flower Hospital, New York City
Flushing Hospital and Dispensary, Flushing
Fordham Hospital, New York City
French Benevolent Society Hospital, New York City
Gouverneur Hospital, New York City
Grasslands Hospital, Valhalla
Greenpoint Hospital, Brooklyn
Harlem Hospital, New York City
Highland Hospital, Rochester
Hospital of the Good Shepherd, Syracuse
Holy Family Hospital, Brooklyn
House of the Good Samaritan, Watertown
Hospital for Deformities and Joint Diseases, New York City
*Ithaca City Hospital, Ithaca
Jamaica Hospital, Richmond Hill
Jewish Hospital, Brooklyn
Jewish Maternity Hospital, New York City
Jewish Memorial Hospital, New York City
King's County Hospital, Brooklyn
Knickerbocker Hospital, New York City
Lawrence Hospital, Bronxville
Lebanon Hospital, New York City
Lenox Hill Hospital, New York City
Lincoln Hospital, New York City
Long Island College Hospital, Brooklyn
Lutheran Hospital of Manhattan, New York City
Manhattan Eye and Ear Hospital, New York City
Memorial Hospital for Cancer and Allied Diseases, New York City
Memorial Hospital, Albany
Methodist Episcopal Hospital, Brooklyn
Metropolitan Hospital, New York City
*Millard Fillmore Hospital, Buffalo
Misericordia Hospital, New York City
Mt. St. Mary's Hospital, Niagara Falls
Mt. Sinai Hospital, New York City
Mt. Vernon Hospital, Mt. Vernon
Montefiore Hospital, New York City
Nassau Hospital, Mineola, Long Island
New Rochelle Hospital, New Rochelle
New York City Hospital, Blackwell's Island, New York City
New York Eye and Ear Infirmary, New York City
New York Foundling Home, New York City
New York Hospital, New York City
New York Infirmary for Women and Children, New York City
New York Nursery and Children's Hospital, New York City
New York Orthopedic Hospital, New York City
New York Orthopedic Hospital for Children, West Haverstraw
New York Polyclinic Hospital, New York City
New York Post Graduate Hospital, New York City
New York Hospital for Ruptured and Crippled, New York City
New York Skin and Cancer Hospital, New York City
Niagara Falls Memorial Hospital, Niagara Falls
Norwegian Lutheran Deaconess Hospital, Brooklyn
Olean General Hospital, Olean
Oneida County Hospital, Rome
Park Avenue Clinical Hospital, Rochester
Peck (Carson C.) Memorial Hospital, Brooklyn
Presbyterian Hospital, New York City
Prospect Heights Hospital, New York City
Rochester General Hospital, Rochester
Rochester Homeopathic Hospital, Rochester
Rockaway Beach Hospital and Dispensary, Rockaway Beach
Roosevelt Hospital, New York City
*Sailors Snug Harbor Hospital, New Brighton
St. Catherine's Hospital, Brooklyn
St. Elizabeth's Hospital and Home, Utica
St. Francis Hospital, New York City
St. John's Brooklyn Hospital, Brooklyn
St. John's Hospital, Long Island
*St. John's Riverside Hospital, Yonkers
St. Luke's Hospital, New York City
St. Luke's Hospital, Newburgh
*St. Luke's Hospital, Utica
St. Mark's Hospital, New York City
St. Mary's Maternity Hospital, Buffalo
St. Mary's Free Hospital for Children, New York City
St. Mary's Hospital, Brooklyn
St. Mary's Hospital, Rochester
St. Peter's Hospital, Albany
St. Peter's Hospital, Brooklyn
St. Vincent's Hospital, New York City
St. Vincent's Hospital, West New Brighton
Samaritan Hospital, Troy
Saratoga Hospital, Saratoga Springs
Sloane Hospital for Women, New York City
Soldiers and Sailors Memorial Hospital, Utica
Staten Island Hospital, Tompkinsville
Syracuse Memorial Hospital, Syracuse
The Sanitarium, Clifton Springs
Troy Hospital, Troy

United Hospital, Port Chester
United Israel Zion Hospital, Brooklyn
Vassar Brothers Hospital, Poughkeepsie
White Plains Hospital, White Plains
Woman's Hospital, New York City
Wyckoff Heights Hospital, Brooklyn
Yonkers Homeopathic Hospital and Maternity Home, Yonkers

50 to 100 beds

Alice Hyde Memorial Hospital, Malone
Amsterdam City Hospital, Amsterdam
*Anthony Brady Hospital, Albany
*Aurelia Osborne Fox Memorial Hospital, Oneonta
Babies Hospital, New York City
Beekman Street Hospital, New York City
Benedictine Hospital, Kingston
*Bethesda Hospital, Hornell
Broad Street Hospital, Oneida
Brooklyn Eye and Ear Hospital, Brooklyn
City Hospital, Kingston
Columbus Hospital, New York City
Dobbs Ferry Hospital, Dobbs Ferry
Emergency Hospital of Sisters of Charity, Buffalo
General Hospital, Syracuse
*Geneva City Hospital, Geneva
Glens Falls Hospital, Glens Falls
Harbor Hospital, Brooklyn
*Herman Knapp Memorial Eye Hospital, New York City
Hudson City Hospital, Hudson
*Italian Benevolent Hospital, New York City
Lee Private Hospital, Rochester
Leonard Hospital, Troy
Manhattan Maternity Hospital, New York City
Mary Immaculate Hospital, Jamaica
Mary McClellan Hospital, Cambridge
*Mercy Hospital, Watertown
Nathan Littauer Hospital, Gloversville
Neurological Institute, New York City
New York Ophthalmic Hospital, New York City
Ossining Hospital, Ossining
*Oswego Hospital, Oswego
Rockefeller Institute, New York City
Reconstruction Hospital, New York City
Rome Hospital, Rome
St. Bartholomew's Hospital, New York City
*St. Francis Hospital, Poughkeepsie
St. James Mercy Hospital, Hornell
*St. Jerome's Hospital, Batavia
*St. Joseph's Hospital, Syracuse
St. Joseph's Hospital, Yonkers
*St. Mary's Hospital, Amsterdam
Southampton Hospital, Southampton
Southside Hospital, Bayshore
Swedish Hospital, Brooklyn
Woman's Christian Association Hospital, Jamestown
*Wyoming County Hospital, Warsaw

35 to 50 beds

Greenwich Hospital, Greenwich
Lexington Hospital, New York City
*Soldiers' and Sailors' Memorial Hospital, Penn Yan

NORTH CAROLINA

100 or more beds

City Memorial Hospital, Winston-Salem
Rex Hospital, Raleigh
St. Leo's Hospital, Greensboro
Watts Hospital, Durham

50 to 100 beds

Atlantic Coast Lines R. R. Hospital, Rocky Mount
Biltmore Hospital, Biltmore
*French Broad Hospital, Asheville
Highpoint Hospital, Highpoint
Highsmith Hospital, Fayetteville
Lawrence Hospital, Winston-Salem
Lincoln Hospital, Lincolnton
Long's Sanitarium, Statesville
Martin Memorial Hospital, Mt. Airy
*Mercy General Hospital, Charlotte
New Charlotte Sanitarium, Charlotte
*North Carolina Baptist Hospital, Winston-Salem
North Carolina Orthopedic Hospital, Gastonia
Parkview Hospital, Rocky Mount
Pitt Community Hospital, Greenville
Pittman Hospital, Fayetteville
Rutherford Hospital, Rutherfordton
*Salisbury Hospital, Salisbury

35 to 50 beds

Baker (Richard) Hospital, Hickory
Bullock Hospital, Wilmington
Cumberland General Hospital, Fayetteville
*More Heiring Hospital, Wilson
*Parrott Memorial Hospital, Kinston
*Rocky Mount Sanitarium, Rocky Mount
*Shelby Hospital, Shelby
Wesley Long Hospital, Greensboro

NORTH DAKOTA

100 or more beds

Bismarck Evangelical Deaconess Hospital, Bismarck
Grand Forks Deaconess Hospital, Grand Forks
St. Alexius Hospital, Bismarck
St. John's Hospital, Fargo
St. Luke's Hospital, Fargo

50 to 100 beds

*St. Joseph's Hospital, Minot
St. Michael's Hospital, Grand Forks

OHIO

100 or more beds

Alliance Hospital, Alliance
Aultman Hospital, Canton
Bethesda Hospital, Cincinnati
Bethesda Hospital, Zanesville
Christ Hospital, Cincinnati
Cincinnati General Hospital, Cincinnati
City Hospital, Akron
Cleveland City Hospital, Cleveland
Cleveland Clinic Hospital, Cleveland
Cleveland Maternity Hospital, Cleveland
Glenville Hospital, Cleveland
Good Samaritan Hospital, Cincinnati
Good Samaritan Hospital, Zanesville
Grant Hospital, Columbus
Hawkes Hospital of Mt. Carmel, Columbus
Huron Road Hospital, Cleveland
Jewish Hospital, Cincinnati
Lakeside Hospital, Cleveland
Lucas County Hospital, Toledo
Lutheran Hospital, Cleveland
Massillon City Hospital, Massillon
Mercy Hospital, Hamilton
Mercy Hospital, Toledo
Miami Valley Hospital, Dayton

Middleton Hospital, Middleton
Mt. Sinai Hospital, Cleveland
Portsmouth General Hospital, Portsmouth
St. Alexis Hospital, Cleveland
St. Ann's Infant Asylum and Maternity Hospital, Cleveland
St. Elizabeth's Hospital, Dayton
St. Elizabeth's Hospital, Youngstown
St. Francis Hospital, Columbus
St. John's Hospital, Cleveland
St. Joseph's Hospital, Lorain
St. Luke's Hospital, Cleveland
St. Mary's Hospital, Cincinnati
St. Rita's Hospital, Lima
St. Vincent's Hospital, Cleveland
St. Vincent's Hospital, Toledo
Springfield City Hospital, Springfield
Toledo Hospital, Toledo
Youngstown Hospital, Youngstown
White Cross Hospital, Columbus
Woman's Hospital, Cleveland

50 to 100 beds

Bellaire City Hospital, Bellaire
Children's Hospital, Cincinnati
Children's Hospital, Columbus
Deaconess Hospital, Cincinnati
Fairview Hospital, Cleveland
Flower Hospital, Toledo
Good Samaritan Hospital, Sandusky
Holzer Hospital, Gallipolis
*Home and Hospital of City of Findley, Findley
Hospital Clinic Company, Cleveland
Lakewood Hospital, Lakewood
Lima City Hospital, Lima
Mansfield General Hospital, Mansfield
Martin's Ferry Hospital, Martin's Ferry
Mary Day Nursery and Children's Hospital, Akron
Maternity and Children's Hospital, Toledo
Memorial Hospital, Fremont
Mercy Hospital, Columbus
Mercy Hospital, Canton
Newark City Hospital, Newark
*Ohio Valley Hospital, Steubenville
Robinwood Hospital, Toledo
*St. Anne's Infant Asylum Hospital, Columbus
Salem Hospital, Salem
Schirrman Hospital, Portsmouth
University Hospital, Columbus
Warren City Hospital, Warren

35 to 50 beds

Grace Hospital, Cleveland
*Mithoefer Hospital, Cincinnati

OKLAHOMA

100 or more beds

St. Anthony's Hospital, Oklahoma City
State University Hospital, Oklahoma City

50 to 100 beds

Morningside Hospital, Tulsa
*Oklahoma Baptist Hospital, Muskogee
Wesley Hospital, Oklahoma City

35 to 50 beds

*Ponca City Hospital, Ponca City

OREGON

100 or more beds

Emanuel Hospital, Portland
Good Samaritan Hospital, Portland
Multnomah County Hospital, Portland
Portland Sanitarium, Portland
St. Vincent's Hospital, Portland

50 to 100 beds

Eugene Hospital, Eugene
*Mercy Hospital, Eugene
*Pacific Christian Hospital, Eugene
Portland Surgical Hospital, Portland
Sacred Heart Hospital, Medford
St. Mary's Hospital, Astoria
*Salem City Hospital, Salem

PENNSYLVANIA

100 or more beds

Abington Hospital, Abington
Allegheny General Hospital, Pittsburgh
Allentown Hospital, Allentown
Altoona Hospital, Altoona
Ashland State Hospital, Ashland
Braddock General Hospital, Braddock
Bradford Hospital, Bradford
Bryn Mawr Hospital, Bryn Mawr
Chambersburg Hospital, Chambersburg
Chester County Hospital, West Chester
Chester Hospital, Chester
Chestnut Hill Hospital, Philadelphia
Children's Hospital, Philadelphia
Children's Homeopathic Hospital, Philadelphia
*Christian H. Buhl Hospital, Sharon
Clearfield Hospital, Clearfield
Columbia Hospital, Pittsburgh
Conemaugh Valley Memorial Hospital, Johnstown
Easton Hospital, Easton
Elizabeth Steel Magee Hospital, Pittsburgh
Frankford Hospital, Philadelphia
George F. Geisinger Hospital, Danville
Germantown Dispensary and Hospital, Philadelphia
Hahnemann Hospital, Scranton
Hahnemann Medical and Surgical Hospital, Philadelphia
Hamot Hospital, Erie
Harrisburg Hospital, Harrisburg
Hazleton State Hospital, Hazleton
Homeopathic Medical and Surgical Hospital, Pittsburgh
Hospital of the Protestant Episcopal Church, Philadelphia
Hospital of the University of Pennsylvania, Philadelphia
Hospital of the Woman's Medical College, Philadelphia
J. Lewis Crozer Hospital, Chester
Jefferson Hospital, Philadelphia
Jewish Hospital, Philadelphia
Lancaster General Hospital, Lancaster
Lankenau Hospital, Philadelphia
Medico-Chirurgical and Polyclinic Hospitals, Philadelphia
Memorial Hospital, Roxborough
Mercy Hospital, Altoona
Mercy Hospital, Johnstown
Mercy Hospital, Philadelphia
Mercy Hospital, Pittsburgh
Mercy Hospital, Wilkes-Barre
Methodist Episcopal Hospital, Philadelphia
Misericordia Hospital, Philadelphia
*Montgomery Hospital, Norristown
Moses Taylor Hospital, Scranton

Mt. Sinai Hospital, Philadelphia
*Nanticoke State Hospital, Nanticoke
Passavant Hospital, Pittsburgh
Pennsylvania Hospital, Philadelphia
Philadelphia General Hospital, Philadelphia
Philipsburg State Hospital, Philipsburg
Pittsburgh City Home and Hospital, Mayview
Pittsburgh Hospital, Pittsburgh
Pottsville Hospital, Pottsville
Presbyterian Hospital, Philadelphia
Presbyterian Hospital, Pittsburgh
Reading Hospital, Reading
Robert Packer Hospital, Sayre
*Rochester General Hospital, Rochester
Sacred Heart Hospital, Allentown
St. Agnes Hospital, Philadelphia
St. Francis Hospital, Pittsburgh
St. John's General Hospital, Pittsburgh
St. Joseph's Hospital, Lancaster
St. Joseph's Hospital, Philadelphia
St. Joseph's Hospital, Pittsburgh
St. Joseph's Hospital, Reading
*St. Joseph's Infant and Maternity Hospital, Scranton
St. Luke's Hospital, South Bethlehem
St. Margaret's Hospital, Pittsburgh
St. Mary's Hospital, Philadelphia
St. Vincent's Hospital, Erie
Samaritan Hospital, Philadelphia
Scranton State Hospital, Scranton
South Side Hospital, Pittsburgh
Uniontown Hospital, Uniontown
Washington Hospital, Washington
West Philadelphia Hospital for Women, Philadelphia
Western Pennsylvania Hospital, Pittsburgh
*Westmoreland Hospital, Greensburg
Wilkes-Barre City Hospital, Wilkes-Barre
Williamsport Hospital, Williamsport
Wills Hospital, Philadelphia
Women's Homeopathic Hospital, Philadelphia
Woman's Hospital, Philadelphia
York Hospital and Dispensary, York

50 to 100 beds

*Adrian Hospital, Punxsutawney
Annie M. Warner Hospital, Gettysburg
Beaver Valley General Hospital, New Brighton
*Bloomsburg Hospital, Bloomsburg
Cambria Hospital, Johnstown
*Carlisle General Hospital, Carlisle
Children's Hospital, Pittsburgh
Children's Hospital of the Mary J. Drexel Home, Philadelphia
Citizens General Hospital, New Kensington
Columbia Hospital, Columbia
Cottage State Hospital, Blossburg
DuBois Hospital, DuBois
Eye and Ear Hospital, Pittsburgh
Frederick Douglass Memorial Hospital, Philadelphia
Good Samaritan Hospital, Lebanon
Homeopathic Hospital, West Chester
Homestead Hospital, Homestead
Howard Hospital, Philadelphia
Indiana Hospital, Indiana
J. C. Blair Memorial Hospital, Huntingdon
Jewish Maternity Hospital, Philadelphia
Joseph Price Memorial Hospital, Philadelphia
*Kane Summitt Hospital, Kane
*Kensington Hospital for Women, Philadelphia
Lewistown Hospital, Lewistown
Lock Haven Hospital, Lock Haven
Maple Avenue Hospital, DuBois
*Memorial Hospital, New Eagle
Montefiore Hospital, Pittsburgh
*Nesbitt State Hospital, Kingston
New Castle Hospital, New Castle
*Ohio Valley Hospital, McKees Rocks
Oil City Hospital, Oil City
Palmerton Hospital, Palmerton
Philadelphia Lying-in Charity Hospital, Philadelphia
Pittston Hospital, Pittston
Polyclinic Hospital, Harrisburg
Providence Hospital, Beaver Falls
Roselia Foundling and Maternity Hospital, Pittsburgh
*St. Christopher Hospital for Children, Philadelphia
St. Luke's Homeopathic Hospital, Philadelphia
St. Vincent's Hospital, Philadelphia
*Sewickley Valley Hospital, Sewickley
Shamokin Hospital, Shamokin
Stetson Hospital, Philadelphia
Suburban Hospital, Bellevue
*West Philadelphia Hospital, Philadelphia
Windber Hospital, Windber

35 to 50 beds

Great Heart Maternity Hospital, Philadelphia
Lee Homeopathic Hospital, Johnstown
West Side Sanitarium, York

RHODE ISLAND

100 or more beds

Homeopathic Hospital, Providence
Newport Hospital, Newport
Providence City Hospital, Providence
Rhode Island Hospital, Providence
St. Joseph's Hospital, Providence

50 to 100 beds

*Memorial Hospital, Pawtucket
Providence Lying-in Hospital, Providence

SOUTH CAROLINA

100 or more beds

Columbia Hospital, Columbia
Florence Infirmary, Florence
Greenville City Hospital, Greenville
Roper Hospital, Charleston
South Carolina Baptist Hospital, Columbia

50 to 100 beds

Anderson County Hospital, Anderson
Baker Sanatorium, Charleston
St. Francis Xavier Infirmary, Charleston

35 to 50 beds

*Mary Black Clinic and Hospital, Spartanburg
Orangeburg Hospital, Orangeburg
University Hospital, Anderson

SOUTH DAKOTA

100 or more beds

Chamberlain Sanitarium and Hospital, Chamberlain
McKennan Hospital, Sioux Falls
Methodist State Hospital, Mitchell
Sacred Heart Hospital, Yankton
St. Luke's Hospital, Aberdeen

50 to 100 beds

Bartron Hospital, Watertown
Lincoln Hospital, Aberdeen
Luther Hospital, Watertown
Lutheran Hospital, Hot Springs
Moe Hospital, Sioux Falls
New Madison Hospital, Madison
Peabody Hospital, Webster
St. Joseph's Hospital, Mitchell
St. Mary's Hospital, Pierre

TENNESSEE

100 or more beds

Baptist Memorial Hospital, Memphis
Erlanger Hospital, Chattanooga
George W. Hubbard Hospital, Nashville
Knoxville General Hospital, Knoxville
Memphis General Hospital, Memphis
Methodist Hospital, Memphis
Nashville City Hospital, Nashville
St. Joseph's Hospital, Memphis
St. Thomas Hospital, Nashville
Vanderbilt Hospital, Nashville

50 to 100 beds

Appalachian Hospital, Johnson City
Baird-Dulaney Hospital, Dyersburg
Baptist Hospital, Nashville
*Millie E. Hale Hospital, Nashville
Newell and Newell Sanitarium, Chattanooga
Protestant Hospital, Nashville
Riverside Hospital, Knoxville
Woman's Hospital, Memphis

35 to 50 beds

Crippled Children's Hospital, Memphis

TEXAS

100 or more beds

Baylor Hospital, Dallas
Baptist Hospital, Houston
Central Texas Baptist Sanitarium, Waco
Harris Hospital, Fort Worth
Hotel Dieu, Beaumont
International R. R. Hospital, Palestine
*Jefferson Davis Hospital, Houston
John Sealy Hospital, Galveston
Methodist Hospital, Houston
Parkland Hospital, Dallas
*Providence Sanitarium, Waco
Robert B. Green Memorial Hospital, San Antonio
St. Joseph's Infirmary, Fort Worth
St. Joseph's Infirmary, Houston
St. Mary's Infirmary, Galveston
St. Paul's Sanitarium, Dallas
Santa Fe Hospital, Temple
Santa Rosa Infirmary, San Antonio
Scott and White Hospital, Temple
Seton Infirmary, Austin
Southern Pacific Hospital, Houston
Wichita General Hospital, Wichita Falls

50 to 100 beds

All Saints' Hospital, Fort Worth
*Baptist Hospital, Fort Worth
*City and County Hospital, Fort Worth
Frances Ann Lutcher Hospital, Orange
Hella Temple Hospital, Dallas
King's Daughters' Hospital, Temple
Masonic Hospital, El Paso
St. Anthony's Hospital, Amarillo
*St. Joseph's Hospital, Paris
Sanatorium of Paris, Paris
Sherman Hospital, Sherman
Spohn Sanitarium, Corpus Christi
Texarkana Sanitarium, Texarkana
Texas and Pacific R. R. Hospital, Marshall

35 to 50 beds

Burns Hospital, Cuero
*Children's Hospital, Fort Worth
Colgin Hospital, Waco
McKinney City Hospital, McKinney

UTAH

100 or more beds

Holy Cross Hospital, Salt Lake City
Latter Day Saints' Hospital, Salt Lake City
St. Mark's Hospital, Salt Lake City
Salt Lake County Hospital, Salt Lake City
Thomas D. Dee Memorial Hospital, Ogden

50 to 100 beds

Utah-Idaho Hospital, Logan

VERMONT

100 or more beds

Bishop de Goss Briand Hospital, Burlington
Mary Fletcher Hospital, Burlington

50 to 100 beds

Fanny Allen Hospital, Winooski
Heaton Hospital, Montpelier
Rutland Hospital, Rutland
*St. Albans Hospital, St. Albans

VIRGINIA

100 or more beds

Chesapeake and Ohio Hospital, Clifton Forge
Hospital Division of Medical College of Virginia, Richmond
Norfolk Protestant Hospital, Norfolk
Retreat for the Sick, Richmond
Roanoke Hospital, Roanoke
St. Vincent's Hospital, Norfolk
Stuart Circle Hospital, Richmond
University of Virginia Hospital, Charlottesville

50 to 100 beds

*Dixie Hospital and Hampton Training School for Nurses, Hampton
Elizabeth Buxton Hospital, Newport News
George Ben Johnston Memorial Hospital, Abingdon
Grace Hospital, Richmond
Jefferson Hospital, Roanoke
Johnston-Willis Sanitarium, Richmond
King's Daughters' Hospital, Staunton
*King's Daughters' Hospital, Portsmouth
Lake View Hospital, Suffolk
Lewis Gale Hospital, Roanoke
*Lynchburg Hospital and City Home, Lynchburg
Parrish Memorial Hospital, Portsmouth
*Petersburg Hospital, Petersburg
*Riverside Hospital, Newport News
St. Elizabeth's Hospital, Richmond

St. Luke's Hospital, Richmond
Sarah Leigh Hospital, Norfolk
*Sheltering Arms Free Hospital, Richmond
Shenandoah Hospital, Roanoke
Tucker Sanitarium, Richmond
Virginia Baptist Hospital, Lynchburg
Winchester Memorial Hospital, Winchester

WASHINGTON

100 or more beds

Children's Orthopedic Hospital, Seattle
Columbus Sanitarium, Seattle
King County Hospital, Seattle
Maria Beard Deaconess Hospital, Spokane
*Northern Pacific Hospital, Tacoma
*Providence Hospital, Everett
Providence Hospital, Seattle
Sacred Heart Hospital, Spokane
*St. Elizabeth's Hospital, Yakima
St. Joseph's Hospital, Tacoma
St. Luke's Hospital, Spokane
St. Mary's Hospital, Walla Walla
Seattle City Hospital, Seattle
Seattle General Hospital, Seattle
Swedish Hospital, Seattle
Tacoma General Hospital, Tacoma

50 to 100 beds

Everett General Hospital, Everett
Minor Private Hospital, Seattle
*St. Anthony's Hospital, Wenatchee
*St. Joseph's Hospital, Aberdeen
St. Joseph's Hospital, Bellingham
St. Luke's Hospital, Bellingham
St. Luke's Hospital, Seattle
Virginia Mason Hospital, Seattle
Walla Walla Sanitarium, College Place

35 to 50 beds

*Norwegian Hospital, Seattle
Walla Walla Sanitarium, Walla Walla

WEST VIRGINIA

100 or more beds

Charleston General Hospital, Charleston
Kessler Hatfield Hospital, Huntington
*Logan Hospital, Logan
Mountain State Hospital, Charleston
Ohio Valley Hospital, Wheeling
*St. Francis Hospital, Charleston
St. Mary's Hospital, Clarksburg
Welch Hospital, No. 1, Welch
Wheeling Hospital, Wheeling

50 to 100 beds

Beckley Hospital, Beckley
Bluefield Sanitarium, Bluefield
*Camden Clark Hospital, Parkersburg
*Chesapeake and Ohio R. R. Hospital, Huntington
*City Hospital, Martinsburg
Coal Valley Hospital, Montgomery
Cook Hospital, Fairmont
Davis Memorial Hospital, Elkins
Elkins City Hospital, Elkins
Fairmont Hospital, Fairmont
Guthrie Hospital, Huntington
King's Daughters' Hospital, Beckley
*King's Daughters' Hospital, Martinsburg
McKendree Hospital, No. 2, McKendree
Monongalia County Hospital, Morgantown
*St. Joseph's Hospital, Parkersburg
St. Luke's Hospital, Bluefield

WISCONSIN

100 or more beds

Columbia Hospital, Milwaukee
Evangelical Deaconess Hospital, Milwaukee
Holy Family Hospital, Manitowoc
LaCrosse Lutheran Hospital, LaCrosse
Lutheran Hospital, Eau Claire
Madison General Hospital, Madison
Marquette University Hospital, Milwaukee
Mercy Hospital, Janesville
Milwaukee Children's Hospital, Milwaukee
Milwaukee County Hospital, Milwaukee
Milwaukee Hospital, Milwaukee
Milwaukee Maternity Hospital, Milwaukee
Mt. Sinai Hospital, Milwaukee
St. Agnes Hospital, Fond du Lac
St. Elizabeth's Hospital, Appleton
St. Francis Hospital, La Crosse
St. Joseph's Hospital, Marshfield
St. Joseph's Hospital, Milwaukee
*St. Mary's Hospital, Green Bay
St. Mary's and Mercy Hospitals, Oshkosh
St. Mary's Hospital, Milwaukee
St. Mary's Hospital, Superior
St. Mary's Hospital, Wausau
Wisconsin State General Hospital, Madison

50 to 100 beds

Grandview Hospital, LaCrosse
*Hanover Hospital, Milwaukee
*LaCrosse Public Hospital, LaCrosse
Milwaukee Infant's Home and Hospital, Milwaukee
*St. Catherine's Hospital, Kenosha
*St. Francis Hospital, Superior
St. Joseph's Hospital, Dodgeville
*St. Luke's Hospital, Racine
St. Mary's Hospital, Madison
St. Mary's Hospital, Racine
Theda Clark Memorial Hospital, Neenah

35 to 50 beds

Methodist Hospital, Madison

WYOMING

100 or more beds

Natrona County Hospital, Casper

50 to 100 beds

Casper Private Hospital, Casper
Wheatland Hospital, Wheatland

CANADA

ALBERTA

100 or more beds

Edmonton General Hospital, Edmonton
General Hospital, Calgary
Holy Cross Hospital, Calgary
Medicine Hat Hospital, Medicine Hat
Misericordia Hospital, Edmonton
Royal Alexandra Hospital, Edmonton
University of Alberta Hospital, Edmonton

50 to 100 beds

Brett Hospital, Banff
*Galt Hospital, Lethbridge
Lamont Public Hospital, Lamont
Municipal Hospital, Drumheller

35 to 50 beds

Vegreville General Hospital, Vegreville

BRITISH COLUMBIA

100 or more beds

Provincial Royal Jubilee Hospital, Victoria
Royal Columbia Hospital, New Westminster
Royal Inland Hospital, Kamloops
St. Eugene Hospital, Cranbrook
St. Joseph's Hospital, Victoria
St. Paul's Hospital, Vancouver
Shaughnessy Hospital, Vancouver
Vancouver General Hospital, Vancouver

50 to 100 beds

Queen Victoria Hospital, Revelstoke

MANITOBA

100 or more beds

Brandon General Hospital, Brandon
Children's Hospital, Winnipeg
Grace Hospital, Winnipeg
King Edward Hospital, Winnipeg
King George Hospital, Winnipeg
Misericordia Hospital, Winnipeg
St. Boniface Hospital, St. Boniface
*Victoria Hospital, Winnipeg
Winnipeg General Hospital, Winnipeg

NEW BRUNSWICK

100 or more beds

General Public Hospital, St. John
Lancaster Hospital, St. John
St. John County Hospital, East St. John

50 to 100 beds

Chipman Memorial Hospital, St. Stephen
Hotel Dieu, Campbellton
Hotel Dieu, Chatham
*Hotel Dieu, St. Basil
Maramichi Hospital, New Castle
Moncton Hospital, Moncton
St. John's Infirmary, St. John
Soldiers Memorial Hospital, Campbellton
Victoria Public Hospital, Frederickton

35 to 50 beds

L. P. Fisher Memorial Hospital, Woodstock

NOVA SCOTIA

100 or more beds

St. Joseph's Hospital, Glace Bay
Victoria Hospital, Halifax

50 to 100 beds

*Aberdeen Hospital, New Glasgow
Children's Hospital, Halifax
General Hospital, Glace Bay
Grace Maternity Hospital, Halifax
Halifax Infirmary, Halifax
Highland View Hospital, Amherst
St. Martha's Hospital, Antigonishe
Sydney City Hospital, Sydney
Yarmouth Hospital, Yarmouth

ONTARIO

100 or more beds

*General Hospital, Belleville
Brantford General Hospital, Brantford
*General Hospital, Brockville
General Hospital, Kingston
General Hospital, Sault Ste. Marie
General Hospital, Toronto
Grace Hospital, Toronto
Hamilton General Hospital, Hamilton
Hotel Dieu, Kingston
Hotel Dieu, Windsor
McKellar General Hospital, Ft. William
Ottawa Civic Hospital, Ottawa
Ottawa General Hospital, Ottawa
St. Joseph's Hospital, Hamilton
St. Joseph's Hospital, London
St. Joseph's Hospital, Port Arthur
St. Joseph's Hospital, Sudbury
St. Michael's Hospital, Toronto
*St. Vincent de Paul Hospital, Brockville
*Salvation Army Grace Hospital, Windsor
Sick Children's Hospital, Toronto
*Stratford General Hospital, Stratford
Western Hospital, Toronto
Victoria Hospital, London
Wellesley Hospital, Toronto

50 to 100 beds

*General Hospital, Galt
*General Hospital, St. Catherines
*Niagara Falls Memorial Hospital, Niagara Falls
Nicholls Hospital, Peterboro
Oshawa General Hospital, Oshawa
Owen Sound General and Marine Hospital, Owen Sound
*Public Hospital, Smith Falls
St. Francis Hospital, Smith Falls
St. Joseph's Hospital, Peterboro
*Salvation Army Hospital, Ottawa
*Welland County Hospital, Welland
Women's College Hospital, Toronto

PRINCE EDWARD ISLAND

50 to 100 beds

Charlottetown Hospital, Charlottetown
Prince Edward Island Hospital, Charlottetown
Princes County Hospital, Summerside

QUEBEC

100 or more beds

Children's Memorial Hospital, Montreal
De La Misericordia Hospital, Montreal
General St. Vincent Hospital, Sherbrooke
Hotel Dieu, Montreal
Jeffery Hale's Hospital, Quebec
Montreal General Hospital, Montreal
Notre Dame Hospital, Montreal
Royal Victoria Hospital, Montreal
Sainte Justine Pour Les Enfants, Montreal

50 to 100 beds

*Homeopathic Hospital, Montreal
Montreal Foundling and Baby Hospital, Montreal
Montreal Maternity Hospital, Montreal
*St. François d' Assise, Quebec
*Sherbrooke Hospital, Sherbrooke
Shriner's Hospital, Montreal

SASKATCHEWAN

100 or more beds

Grey Nun's Hospital, Regina
Moose Jaw General Hospital, Moose Jaw
St. Paul's Hospital, Saskatoon
Saskatoon City Hospital, Saskatoon

50 to 100 beds

Holy Family Hospital, Prince Albert
*Hugh Waddell Memorial Hospital, Canora
Notre Dame Hospital, North Battleford
Providence Hospital, Moose Jaw
*St. Elizabeth's Hospital, Humboldt
Victoria Hospital, Prince Albert

AUSTRALIA

Royal Alexandra Hospital for Children, Sydney, New South Wales

CANAL ZONE

Ancon Hospital, Ancon

CHINA

Hunan-Yale Hospital, Changsha

FRANCE

*American Hospital, Paris

HAWAII

Queen's Hospital, Honolulu

PORTO RICO

Presbyterian Hospital, San Juan

NEW ZEALAND

Dunedin Hospital, Dunedin

URUGUAY

Gynecological Hospital (Pereira Rossell), Montevideo
Maternity Hospital (Pereira Rossell), Montevideo

UNITED STATES GOVERNMENT

ARMY

Fitzsimmons General Hospital, Denver, Colorado
Letterman General Hospital, San Francisco, California
Station Hospital, Fort Sam Houston, Texas
Walter Reed General Hospital, Washington, District of Columbia
William Beaumont Hospital, El Paso, Texas

NAVY

Naval Hospital, Mare Island, California
Naval Hospital, San Diego, California
Naval Relief Ship, San Pedro, California
Naval Hospital, Great Lakes, Illinois
Naval Hospital, Chelsea, Massachusetts
Naval Hospital, Washington, District of Columbia
Naval Hospital, League Island, Philadelphia, Pennsylvania
Naval Hospital, Norfolk, Virginia
Naval Hospital, New York, New York

PUBLIC HEALTH SERVICE

Marine Hospital No. 1, Baltimore, Maryland
Marine Hospital No. 2, Boston, Massachusetts
Marine Hospital No. 3, Buffalo, New York
Marine Hospital No. 5, Chicago, Illinois
Marine Hospital No. 6, Cleveland, Ohio
*Marine Hospital No. 7, Detroit, Michigan
*Marine Hospital No. 8, Evansville, Indiana
Marine Hospital No. 9, Fort Stanton, New Mexico
*Marine Hospital No. 10, Key West, Florida
Marine Hospital No. 11, Louisville, Kentucky
Marine Hospital No. 12, Memphis, Tennessee
Marine Hospital No. 13, Mobile, Alabama
Marine Hospital No. 14, New Orleans, Louisiana
*Marine Hospital No. 15, Pittsburgh, Pennsylvania
*Marine Hospital No. 17, Port Townsend, Washington
Marine Hospital No. 18, St. Louis, Missouri
Marine Hospital No. 19, San Francisco, California
Marine Hospital No. 20, Savannah, Georgia
Marine Hospital No. 21, Stapleton, New York
Marine Hospital No. 43, Ellis Island, New York
Marine Hospital No. 66, Carville, Louisiana
Marine Hospital No. 70, New York, New York
Marine Hospital No. 82, Norfolk, Virginia

VETERANS' BUREAU

Veterans' Hospital No. 24, Palo Alto, California
Veterans' Hospital No. 27, Alexandria, Louisiana
Veterans' Hospital No. 32, Washington, District of Columbia
Veterans' Hospital No. 37, Waukesha, Wisconsin
Veterans' Hospital No. 41, New Haven, Connecticut
Veterans' Hospital No. 42, Perry Point, Maryland
Veterans' Hospital No. 44, West Roxbury, Massachusetts
Veterans' Hospital No. 48, Atlanta, Georgia
Veterans' Hospital No. 49, Philadelphia, Pennsylvania
Veterans' Hospital No. 50, Whipple Barracks, Arizona
Veterans' Hospital No. 51, Tucson, Arizona
Veterans' Hospital No. 52, Boise, Idaho
Veterans' Hospital No. 53, Dwight, Illinois
Veterans' Hospital No. 55, Fort Bayard, New Mexico
Veterans' Hospital No. 57, Knoxville, Iowa
Veterans' Hospital No. 59, Tacoma, Washington
Veterans' Hospital No. 60, Oteen, North Carolina
Veterans' Hospital No. 62, Augusta, Georgia
Veterans' Hospital No. 63, Lake City, Florida
Veterans' Hospital No. 64, Camp Kearney, California
Veterans' Hospital No. 65, St. Paul, Minnesota
Veterans' Hospital No. 67, Kansas City, Missouri
Veterans' Hospital No. 68, Minneapolis, Minnesota
Veterans' Hospital No. 69, Fort Thomas, Kentucky
Veterans' Hospital No. 72, Helena, Montana
Veterans' Hospital No. 74, Gulfport, Mississippi
Edward Hines Junior Hospital, Maywood, Illinois
Veterans' Hospital No. 77, Portland, Oregon
Veterans' Hospital No. 78, North Little Rock, Arkansas
Veterans' Hospital No. 79, Dawson Springs, Kentucky
Veterans' Hospital No. 81, Bronx, New York
Veterans' Hospital No. 84, Algiers, Louisiana
Veterans' Hospital No. 85, Walla Walla, Washington
Veterans' Hospital No. 88, Memphis, Tennessee
Veterans' Hospital No. 89, Rutland, Massachusetts
Veterans' Hospital No. 90, Muskogee, Oklahoma
*Veterans' Hospital No. 91, Tuskegee, Alabama
Veterans' Hospital No. 92, Jefferson Barracks, Missouri
Veterans' Hospital No. 93, Legion, Texas
Veterans' Hospital No. 94, American Lake, Washington
Veterans' Hospital No. 95, Northampton, Massachusetts
*Veterans' Hospital No. 96, Tupper Lake, New York
Veterans' Hospital No. 97, Chillicothe, Ohio
Veterans' Hospital No. 98, Castle Point, New York
Veterans' Hospital No. 100, Camp Custer, Michigan
Veterans' Hospital No. 101, St. Cloud, Minnesota
Veterans' Hospital No. 102, Livermore, California

NATIONAL SANITARIUMS

National Sanitarium, Sawtelle, California
National Sanitarium, Danville, Illinois
National Sanitarium, Togus, Maine
National Sanitarium, Leavenworth, Kansas
National Sanitarium, Dayton, Ohio
National Sanitarium, Johnson City, Tennessee
*National Sanitarium, Hot Springs, South Dakota
National Sanitarium, Hampton, Virginia
National Sanitarium, National Home, Wisconsin

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